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Benjamin Smith Lyman
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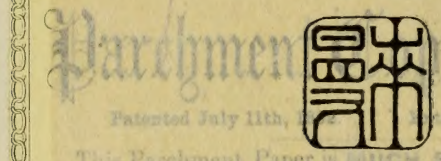

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15 Bruton Street, Berkeley Square,
12 Feb. 61.

My dear York

My Voyage came to hand to-day & I have read it with much interest, and I think you have made a very good book of it. I have also read Hunstanton Sunday & still I found the opinion that of the present dwelling place was the best & the Lake in the Lawn. I am very much pleased with your description of that mind; and I agree with you that the Mill Land site is a pleasant one and perhaps better on the whole for a dwelling house and will be with the College next door and also by buildings and trees as it is already. The views it would have as well as most of the Lawn but think that you have missed much of the Lawn & the sea not going on first & the right to the left. A little thinning would give you a view of the sea & the Lake with a finer water view than any one has. The hill is so high above the water as to give the houses close by it more the appearance of being from the pleasure ground. The additional distance (200 yards) is to be sure a drawback, but would not do for me with his active habits, and it is hardly likely that a place could be found as near to the centre of the old and fault is for more comfortable in every way would not seem quite so dear; comfortable & there also have lived in it so & I. They think that if a life interest in the Mill could not be obtained it would be for the Trustees to purchase the Freehold instead of leasing it. I also when Father and Mother could bear it best I think both the house and the wood but would be for the College, and perhaps getting to life out of it by it there would in case it became a good price you would full confidence in your skill & I am to begin with you & then to be

135 South Fifth Street, Philadelphia, 12 Feb. 71

… am delighted to hear by your letter of yesterday … is so decidedly well and hearty. He will now be there rapidly. … dread your leaving us a week … I do not expect probably that the mill … week — & I do not expect that I shall … I shall write to you & let you know … I have the house painting done, but it seems hardly … under way and I cannot … when it will get done. We have … I cannot … legacy coming out for … if it … I have an interesting … & clean … I cannot … by early, which enabled me … manner than they are now situated … I confess that I am still in favor of having the house … (though it is not my business to do so) it will … time I have since little … but I should still … time I have the second story … in the house, and among other … to correspond with the dining room below. Lizzy could then … above the dining room instead … the situation. But it seems … that the … will be the sentiment; and as … of the house favor that, this is a strong … the house able to … all the bedrooms of nearly equal … the second story … dining room) it would be easy to … from one room to another than from the … special room a certain … state me more … have ever … The general appearance of the house … and … feet in width … are arguments in … I prefer the … the evening in the parlor as a … well. — Mr. Bailey went … to … or no. — I promised … but hope not to … Sam Jones … probably … [illegible] … [illegible] … [illegible] … [illegible]

3[illegible] South [illegible] Street Philadelphia
30 Oct. 77.

Dear Miss Abbott.

Father was very much pleased with the [illegible] that Aunt Susan was to send him. It is being more conveniently portable than the other glass as it magnifies twice as much. I arrived not in time for him to take it with him early the next morning to [illegible]

[illegible] expected to come Sunday night or Monday but Friday before, but a little disappointed and vexed. Yet there were reasons a day at all. He complained of walking only a little more easily than before, but a letter dated Wednesday [illegible] that he then considered decidedly better and had no fever and admitted he really better. He had begun to feel both discouraged, most that he will improve more rapidly and soon be down stairs.

On arriving here I found that Mrs. Cleaby had been quite sick as we [illegible] from Fredonia to New York, and was in bed three or four days at Mrs. Foster's in New York and had come here last Saturday but not going to Algonac. I found her looking much better that evening sitting in the parlor, but lying on a sofa. Mr. Cleaby had been to West Virginia day before yesterday, and I arrived just in time to have a little talk with him on business matters. He expects I may be written a few days to North Creek [illegible] before the [illegible] week; some time we have been there for some time of sending me there I should come home.

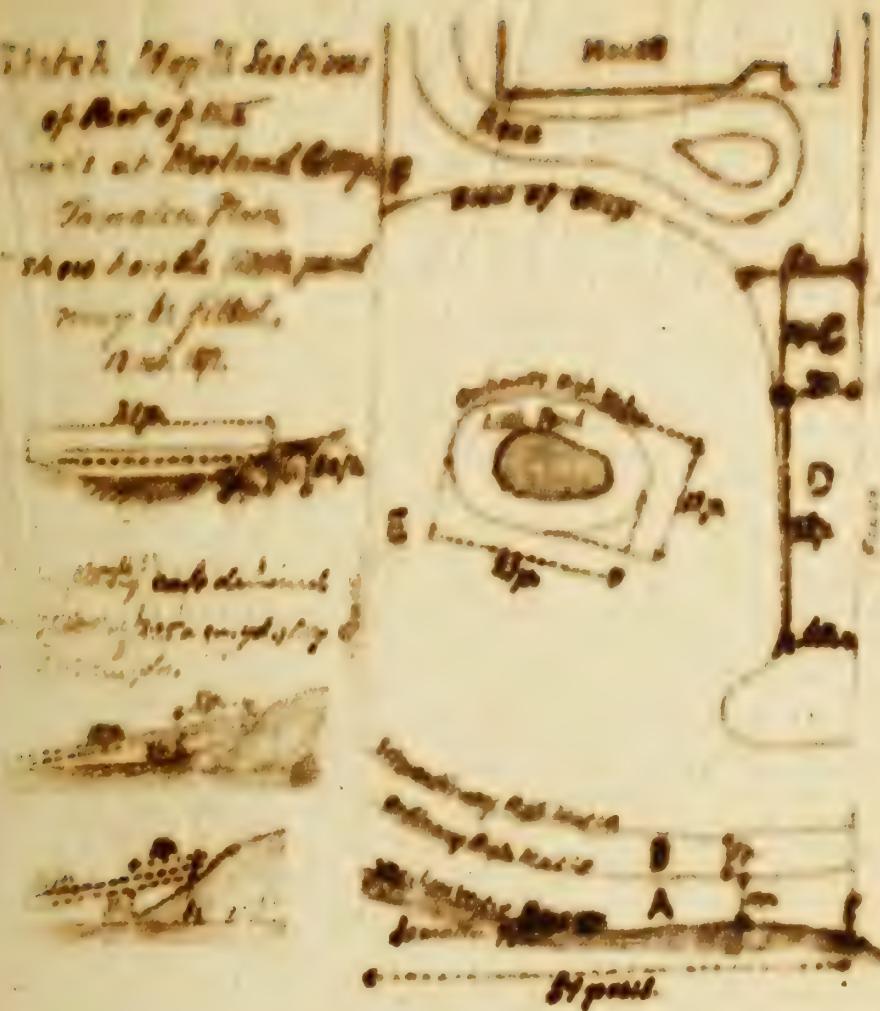
I found Ed had arrived here a few days too late to vote [illegible] and state election; but he went [illegible] Republican candidates were had nec and were elected by considerable majorities my absence was no great matter.

Hoping that you and all the family are well and that you will give my love to them all. I remain as ever

Affectionately yours.

Mary Smith Abbott.

C3




[illegible] an area of about (18×15) 270 square yards, rising gradually from [illegible] level of the big sand & about three feet above that level.

[illegible] an area of about (5×57=) 285 square yards, rising gradually towards [illegible] & three feet above low water.

[illegible] contain about 765 square yards, and would yield of solid [illegible] as in figure 2, (765×½=) 382½ cubic yards.

[illegible] an area of about (12×11½=) 138 square yards.

[illegible] an area of about (28×7½=) 156 square yards.

[illegible] contain about 270 square yards, and of clay & slightly [illegible] shown in figures 4, 5 and 6, would yield of solid material about [illegible] cubic yards. — If sand to E would yield 20 cubic yds, but the small [illegible] & ordinary tides [illegible] will wash the little sand & ordinary high water mark would need probably [illegible] 12×8×½ = 250 cubic yards. To fill it up to a foot above high water [illegible] & bottom got filled, would would need probably not more [illegible] 500 cubic yards. The amount of all the sum A, B, C and D 382½ + 138 = 520 yds.

135 South Fifth Street, Philadelphia, [illegible]

C. H. R. Clymer Esq

Dear Sir:

While at Jamaica Plain the other day I made a hasty sketch of the ground of the Arnold Arboretum. It seems a desirable lot to take advantage of the uncommon inequalities of surface and at present it looks most of it capable of drainage from its shape. The highest ridge could be easily cut down and used to fill up the hollows and a ordinary rise of land would be left. The whole could be graded for about 50 cents per cubic yard. But it would probably be best to fill up the hollows with the extraordinary high water that has often been in the last eighteen years, every winter. For example I know that it would be necessary that all the ground should be raised on the [illegible] to the level of leaving a gently sloping bank, and to take some 3 yards more to make up the 500 yards needed in all. I think that it could best be spared from the spaces marked C and D on the map; for it could be taken there without destroying or [illegible] and without injuring in general appearance the [illegible] ground. From E and the knoll 20 cubic yards could be taken without [illegible] the trees; but just as it will be before the extraordinary high water and A small amount could be taken without ruining the [illegible] F. Of course a large amount could be taken near E if a marsh of [illegible] were desired, and it would perhaps improve the view of the [illegible] from the house. But such a radical change does not seem necessary to the [illegible] of the big pond and the spaces C and D would furnish all the material needed. It would be necessary to dig from the shore of the pond to the water line this would [illegible] the earth freshly dug would of course absorb more than fill up the [illegible] for it as solid earth and the filling would have to be [illegible] in the middle than at the sides if it be wished that it should be [illegible] at the same time. The rich loam beneath about a foot [illegible] could be kept on top of the filling, if there be no danger of the [illegible] to be in bad weather; or it might be well for manuring an

…ears for the dredging. Perhaps C & D would pay…
…ider that would be needed to cover the…
…digging from C and D a certain…
…and after digging could be more…
…ground as it is, after…
…down to the required depth from C could…
…from B, and D on the necessary…
…D have been dug over, then the…
…would be saved and applied with…
…would be, and the…
…necessary the rest of the digging…
…from…
…the…
…and the…
…estimate and…
…with…
…to give…
…good idea of the…

It would seem then on the whole that the cost of filling up the higher level…
…dollars including a profit of nearly twenty percent…
…contractor…
…for the…
…three days' work with…
…however the chance to get the…
…from…
…would be neglected; it would cost eleven or twelve…
…to buy the gravel necessary for the filling. Of course…
…higher one, as only 250 cubic yards would be needed…
…are based on…
…statement that the…
…$1.25. Something…
…bottom or sides of the…
…for a…
…walking needed for this and…
…needed, the additional cost would…

Hoping that even these rough estimates may answer some…
…purpose in deciding the…
…of the contractor's price, I remain, as ever,

Yours affectionately,

Benj. Smith Lyman.

135 South Fifth Street, Philadelphia, March

Dear James:

It gives me pleasure to send you a message from Aunt Susan Linby. She lay sick three or four days last week at Mrs. John Hoffers in New York at No. 256 West Forrest Street, and says that Mrs Hoffer was with her & the pleasure she and [illegible] asked to have from your agreeable [illegible] and requested to know that you would see that you have come back to New [illegible] to visit.

Aunt Susan seems already to be much better [illegible] day as she is in the parlor [illegible] Mary & Lem that Brother was a little more comfortable in his mind, & decidedly better to day than before. [illegible] & letter and wire and write [illegible]

Your affectionate Brother
Lewis Thomas.

8

135 South Eighth Street, Philadelphia,
30 Oct. 87.

My dear Fanny:

I owe you many thanks for the pamphlet which I have written, but am very sorry you had no letter about mother's health yesterday. She had suffered less in her last paroxysm than before. — I should feel much obliged if you would send me Mrs. Gilder's letter to read. What a thing is considered right in one circle is wrong in another! I found very funny the book of Walter Whitman, I had never thought of him as being anything even as fine as all. The article in the Westminster Review about him is really very good, and it seems true very just. I hope you will not be disappointed in Whitman's second number. For my part I owe him years of a great pleasure. You will now no doubt feel more interest in the article published in the Monthly upon Whitman. Mr. Gilder sent me a number of the Springfield Republican containing a favourable notice of it, and I send you the paper that you may not destroy it if you have one of consequence. There is a charming letter from Mr. Emerson quoted in the article. The Westminster article has renewed and increased my desire to read de Tocqueville's work on Democracy in America, but I fear it is a book that will remain in print for me a long time. In the article appears to be quoted one of my favorite passages of Whitman: "He bids down the country roads, and open and ready," and so on. I once had a chance to quote it very pat in Western Pennsylvania near Pittsburgh when a genial young lawyer there had just been riding that road on a load of hay; and it seemed to have good effect. — The pictures that Mr. Pandit said his daughter was going to send have come at last, smuggled Indian-native-like along with a bundle of newspapers of the Book. Fanny, all over with scribbling all over by the Pandit explaining the meaning of the pictures. They are a very interesting collection, but I have not yet found time to look through them carefully. The other things of Yoke of having sent have not come yet; among them another edition of Sacontala.

Please give my love to Howard, and believe me always

Very affectionately yours. Roy Smith Lyman.

11

135 South Fifth Street, Philadelphia
October 1871.

Dear Jesse,

I have to thank you for your favor of May 6th, & day and for the printed letter and documents inclosed. I should be happy to read the printed letter more carefully than I have had a chance to do before. It will give me great pleasure to do anything that I can in regard to the Penn Mutual Company, but I confess that I cannot feel very sanguine of success not on account of the merits of the case, but because I am entirely ignorant of how to manage such a matter. Indeed, had an inquiry been as your letter seems to contain that I should think to be regretted. would have caused a manoeuvre flattery or absurdity among body else; and I am at a loss to think on what even your friendliness could have based such an idea. I have moreover little faith in getting from Philadelphia to men anything that do much like a gratuity or bonus for reprinting a paper that has already been published or soon will be; they are less apt to be disposed in such a way than in some other cities. I suppose that American made an allowance to Ryhiner when he first printed with the hope of publishing a sort of moral claim to [illegible] of republishing, rather than with the genuine motive [illegible] and the case of the [illegible] company [illegible]

25 South Fifth Street, Philadelphia, 16 Oct. 69.

My dear Fanny:

I thank you very much for your favor of Saturday, though sorry that the news about Bessie is no better. Still I wish to know the facts even if they be sometimes disheartening. It is pleasant to see that all you say is not discouraging and that the doctor still talks so hopefully.

I had a call from Mr. Hopper this morning; he had for some time been on the look out for my return. He said that his son Isaac had finally determined to go to College, and had a short time ago left Lippincott's Bookstore where he had worked two months very satisfactorily. The question now was how to get him fitted for College, and some of the teachers they knew of seemed [illegible] and I was asked if I knew of anybody. I only knew of Mr. James Chase, a classmate of my brother and knew him to be able; and told ~~him~~ of Mr. May at Newburyport, but the idea of sending him away hardly seemed to suit. Mr. Hopper wished he could put Isaac under my instruction, [illegible] and so did I wish it were possible, but that could hardly be, as I am so liable to leave the city. He had heard of a Harvard graduate who was to come to be tutor of Mrs. [illegible]'s children, and who would probably have time to teach Isaac too. But in the mean time [illegible] was studying [illegible] without guidance; and would I [illegible] to teach him [illegible] while in town? Such a request could not be as [illegible] as I was to find that Isaac had made up his mind [illegible] before it was too late to do so [illegible]. He [illegible] came to see me himself this afternoon [illegible] seemed in earnest about the matter; promised [illegible] come again tomorrow with some books. I am rather [illegible] after all studies I have once taken [illegible] possible to give even the most [illegible] every day [illegible] time, that may be needed to brush up [illegible] knowledge of Latin and Greek. But I shall begin [illegible] those languages a little [illegible] Mr. Hopper [illegible] for nothing, but to change it as if they were [illegible] which I think not at all [illegible] in [illegible] and [illegible] will be much greater for me than it [illegible] be for [illegible] very [illegible]

[illegible]

16

35 [illegible] St [illegible] [illegible] Feb. [illegible]

My dear Sanborn:

I am very glad to learn by your favor of [illegible] that you are [illegible] down to New Brunswick, and hope you will have [illegible]; and should think you would. — I am surprised to learn that your family has not yet gone to Springfield, for I [illegible] they were [illegible] there some time ago. — You are very kind to urge my translating that Canadian song; so I make bold to enclose a copy of [illegible] [illegible] I have managed to do with it. [illegible] [illegible] [illegible] [illegible] [illegible] be good for something; if so you are welcome to do so. — I am anticipating much pleasure from [illegible] work.

Mr. Edmund [illegible] [illegible] [illegible] has concluded to go to College after working [illegible] two years in [illegible] bookstore. [illegible] [illegible] [illegible] greatly disappointed in his persistent [illegible] [illegible] [illegible] [illegible] at his change of plan of his [illegible] [illegible] [illegible] [illegible] [illegible] and thinks he [illegible] for college by [illegible] summer, though it seems [illegible] [illegible] be [illegible] to [illegible] a year later. He [illegible] [illegible] [illegible] possibly he might [illegible] [illegible] [illegible] [illegible] [illegible] study [illegible] [illegible] [illegible] [illegible] his father [illegible] [illegible] his [illegible] [illegible] at least, [illegible] [illegible] [illegible] in the city of [illegible] [illegible] [illegible] children, and [illegible] [illegible] [illegible] too. So I have [illegible] [illegible] very much [illegible] [illegible] some better [illegible] [illegible]. I am [illegible] in Greek and Latin [illegible] [illegible] grammar, [illegible] will give me some [illegible] [illegible] should not be [illegible] of [illegible] the [illegible] [illegible] books has arisen, [illegible] [illegible] which grammar [illegible] especially [illegible] [illegible] has Harkness's [illegible] [illegible] [illegible] [illegible] by [illegible] [illegible] Harkness's; [illegible] [illegible] [illegible] almost [illegible] begin with [illegible]. [illegible] [illegible] made them [illegible] [illegible] grammar would [illegible] [illegible] [illegible]? It is [illegible] grammar and [illegible].

Very [illegible] [illegible]

I [illegible] to you yesterday, [illegible] [illegible] [illegible] for [illegible] [illegible]

It is the lovely Fanny
Who long to be a bride,
[illegible] comes to see her
[illegible] ever tide.
Wake! for ol dol dai di,
Wake! for ol dol dol di,
[illegible] for ol dai di.

Now let one's weeping;
Let Fanny, weep you for!
[illegible] I have heard say,
[illegible] war."—
[illegible] &c.

[illegible] fair one,
[illegible] did kill;
[illegible] Knight Henry,
[illegible] well.
[illegible] &c.

[illegible]
[illegible] ferred;
[illegible] unfeeling,
[illegible] on the [illegible]
[illegible] &c.
[illegible] like Summets,
[illegible] fine;
[illegible] [illegible] landing
[illegible] Love, for me."
[illegible] &c.

[illegible] were fairly dealing
[illegible] telling well.
and buried
[illegible] knell.
[illegible] &c.

[illegible] for her wear mourning?
[illegible] must now do out
[illegible] garments
[illegible] comical hat.

[illegible]

[illegible]
It is the lovely Fanny
It is the lovely Fanny
The [illegible]
Who long to be a bride
Who comes to see her
Oh, dear! Oh, dear! [illegible]
[illegible]

135 South Fifth Street, Philadelphia, [illegible] 187[illegible].

My dear Sanborn:

I forgot yesterday to write the chorus of [illegible] song as I [illegible] and meant to do as it appears in English [illegible] the same [illegible] and in [illegible]:

Wake, for all doll dic dee,
Wake, for all doll doll dee,
Wake, for all dic dee.

[illegible] that this, though [illegible] meaningless in English [illegible] [illegible], purports to [illegible] of its syllables, wakes and dying. [illegible] line, "[illegible]"; the "Fall" does not translate the "[illegible]" [illegible] but [illegible]".

This morning [illegible] tall stranger came into my office, and said: [illegible] "[illegible] Harvard College?" "Yes." "[illegible] Class?" "Yes." "[illegible] I [illegible] classmate Chace?" "Ah! Indeed. Chevy Chace, as [illegible], [illegible] you?" "Yes." I thought I could see a slight resemblance [illegible] [illegible]; but he has a very [illegible] face as, indeed, he used to [illegible], and [illegible] face [illegible] than he used to be, as tall as you, or [illegible]. He [illegible] to say that he wanted to borrow enough money from me to take [illegible] on his way home from Florida, where he has been living for [illegible] four years, and, though he started with $250, had been [illegible], and [illegible] He [illegible] in the [illegible] and [illegible] remember any name to call on. I half believed the man was an impostor, but it seemed too bold a trick to be [illegible], and as I could think of nothing else [illegible] his story and [illegible] to [illegible] of a classmate, I forked over ten dollars for [illegible]. He said he wanted, as he had a little [illegible], and he declared he would send it back right away. Instead of stopping to chat awhile, he said he must go as soon as possible, and hurried off, only waiting while I [illegible] an envelope for him to send the money back in. He [illegible] however, after [illegible] and asked me if I did not formerly live in Northampton. I spoke of [illegible] [illegible] Judge [illegible], and he remembered him, and asked [illegible] and if he [illegible] successful. I was sorry, however, [illegible], as he might go bothering him [illegible]; and [illegible] [illegible] the [illegible] to the judgeship. Chace says he has been practising law [illegible], and is [illegible] [illegible]. If this was an impostor he could [illegible] [illegible] [illegible].

Philadelphia,
Nov. 1871.

Your favor of the first of this month came to hand
duly & took up after being once forwarded to Northampton and
back again, and was very welcome. I saw Dr. Leidy at the
last Evening and told him what you said about the Fossil & and he
thought you were right in supposing them new, especially as we
have also yet from that formation county, as far as he knows.
He hopes you will write a description of them as you propose and
send them to the academy, where they will be submitted to a com-
mittee as usual and published if the information proves real
[illegible] as he expects. If you could send some specimens for the
Academy they would be very acceptable. — Some time
last week I saw Dr. Genth and told him what you said
about the Diamonds & Chromite and he talked out in your behalf and
immediately offered me to give you his card and ask you to
show him [illegible] specimens as he would like to measure its angles
[illegible] minerals. I was thinking of writing and giving
you the [illegible] transactions
[illegible]
[illegible] did it as I was busy with
the numbers of Raymonds paper in which it appears are
Vol. XI. Nos. 3, 4, 5, 6, 8, 11, 12. It is the current volume, which you can
[illegible] only last and runs until Oct. and next year. Edw.
[illegible] like my was very much interested in learning about
your movements since you left here. He says you left behind
[illegible] collars, which I propose sending by mail, knowing
[illegible] price of washing in your region. Both he and may [illegible]
[illegible] success in finding employment and wish to hear
[illegible] pass the winter agreeably and healthfully. You have a
good chance to learn about the permanency of your [illegible]
[illegible]. Don't marry too many wives at once, for you know
[illegible] bring them all east with you. I shall keep you in mind
[illegible] any suitable work should turn up for you. Edw. is [illegible]
[illegible] and in Missouri, but I don't believe we will [illegible]
[illegible] you, in some respects he was certainly better [illegible]
[illegible] I have been twice at Newfoundland have been back in
[illegible] cause of the dead fish and smell. [illegible]
[illegible] Shall [illegible]
[illegible] and [illegible]

[illegible] Street, Philadelphia, Pa.

Dear Lizzy

I was very glad to learn by your welcome favor of
day before yesterday that [illegible] Be assured
constantly [illegible] feeling of his arrangement and that
her tongue is so bad [illegible] better and the fever and inflamma-
tion less. I am very glad to learn that you feel so much
stronger yourself [illegible] you enjoy so much the sleep in
a [illegible] room. — Uncle Harold's estimation [illegible]
[illegible] be a very fair one and it seems
to be [illegible]

Mr. Hopkins has persuaded me to give his son Isaac Jr. an
interview with a view [illegible] College. He has be-
fore [illegible], because he had
from [illegible] now determined
boy [illegible] as he did him.
other [illegible] and so be carried along
after [illegible] business he will find about
him. [illegible] ready by next
summer; [illegible] for his Classical studies
[illegible] He is not yet
old [illegible] young enough. I think I would be decidedly
best for him [illegible] by spirit and mind as fitting
him. He could [illegible] he might return, then [illegible]
[illegible] view upon the
[illegible] yet [illegible] since the present arrange-
ment was [illegible]. My teaching is only very temporary, which I
may happen to be in on, and which I am only awaiting [illegible]
arrival [illegible] would gradually [illegible] to be a better office than
[illegible] children and [illegible] many [illegible] teach [illegible]
to any [illegible] I am [illegible] only in Classical
[illegible] [illegible] and [illegible] we [illegible] by his
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

[illegible] March 17.

E. H. Ludington Esq.

New York.

My Husband:

[illegible]

135 South Eighth Street, Philadelphia, 4 Feb 1871.

My dear Fanny:

Your favor of day before yesterday was most welcome, though less encouraging than I had hoped as far as Mother's eyes was concerned. — I trust you discharged your duties as Lady to Greenfield with proper dignity and thoroughness. I am glad the people who chose you showed good taste. — Your church did famously for Chicago.

I had a charming hour this evening at the Lockyers. Annie and the girls were well except that Peggy was slightly feverish and had been once naked today as many as the rows. Little Maud page is getting to be pretty communicative. Lesley has not come home yet from West Virginia but is due tomorrow. I had with great interest and pleasure my notice of Greek Lyrics in the Old Velvet, which Annie had read and knew. It is a very good [illegible] but I fear a mistake or misprint would have escaped me if I had seen it and known in time that it was to be in print. — I have also just called at the Hospital for the first time in many weeks, and found all there much as usual. [illegible] as he often is in the evening, and Miss [illegible] very busy, apparently staying over time to get [illegible] done. — Stone and looks more like his mother, but [illegible] with Rex blonde [illegible] and [illegible] and [illegible] dudder. Isaac [illegible] on account of his new work at the [illegible] and [illegible] exercise [illegible] I [illegible] of the University [illegible] upon his mother's advice [illegible] of sending him to [illegible] for College by Summer after next. His mother [illegible] admit the force of my arguments; his sister could not deny them but disliked the idea of his going away to [illegible] from home probably never to come back [illegible] a great length of time. [illegible] that [illegible] Isaac [illegible] Nate, and it really seems [illegible] from, in spite of [illegible] natural [illegible] devotion to [illegible]

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[illegible] Philadelphia [illegible]

Dear Sister

I thank you very much for your two letters, of yesterday and day before, which came both together this morning [illegible] indeed have caused [illegible] anxiety [illegible] I heartily [illegible] at the thought [illegible] will enable [illegible] [illegible] to [illegible] [illegible] will help [illegible].

[illegible] will [illegible] not [illegible] and I cannot [illegible] will let the chance slip. I should think so that the place would be worth as much as the price [illegible] to the [illegible]. If the trustees are not willing to pay the price, it seems to me you will not have very long to wait for [illegible] best in case for sale. There are [illegible] the house [illegible] be moved [illegible] by way [illegible] [illegible] [illegible] [illegible] [illegible] even if [illegible] were [illegible] until the [illegible] [illegible] Possibly [illegible] been [illegible] convenient to move the house through the road [illegible] distance [illegible] more and [illegible] fence removing and [illegible]. Perhaps [illegible] [illegible] to remove the [illegible] fence and [illegible] [illegible] and so [illegible] will [illegible] the [illegible] [illegible] from [illegible] Virginia early this morning [illegible] been here for a [illegible] and [illegible] [illegible] his wife and daughters [illegible] and all of [illegible] [illegible] that Peggy was a little feverish and had been [illegible] and Mary [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] for [illegible] [illegible] [illegible] this morning a very [illegible] and [illegible] [illegible] [illegible] interested in [illegible] manufacturing Company [illegible] Philadelphia [illegible] [illegible] give my love [illegible]

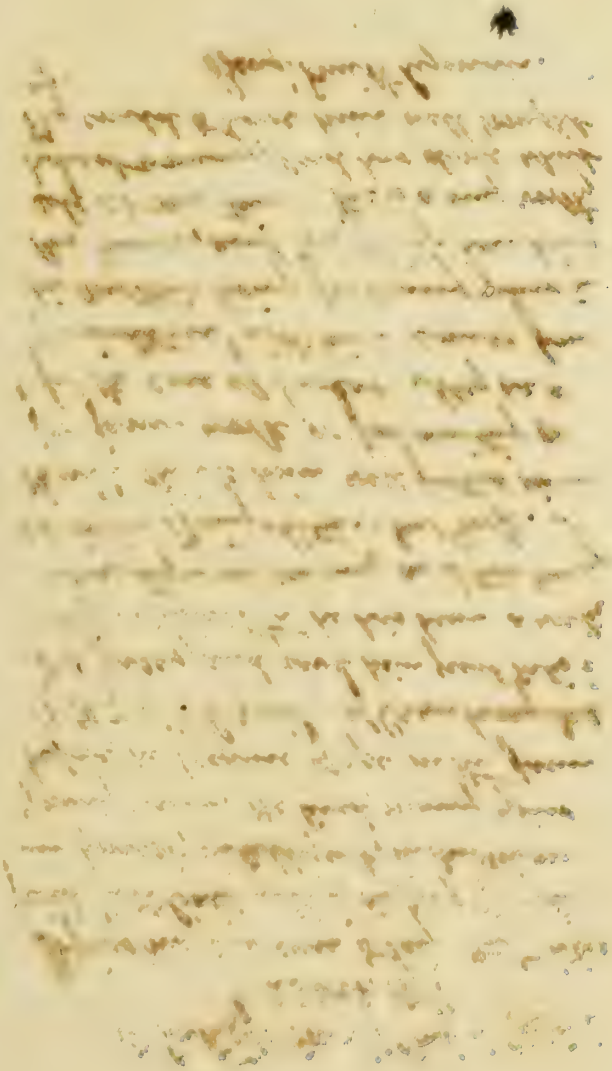
135 [illegible] Street, Philadelphia, [illegible]

My [illegible]

[illegible] favor of yesterday brings very welcome news that [illegible] better, and I trust she will now gain so much more strength [illegible] her throat will improve more rapidly. I must thank you [illegible] for sending [illegible] letter; it is very interesting. [illegible] of reading it to [illegible] [illegible] with [illegible] will not send it back quite yet. [illegible] from the way in which you have [illegible] a paper [illegible] must have great faith in my [illegible] curiosity & in my control over what I have or in the [illegible] [illegible] of its concealment. This last consideration tends [illegible] my curiosity and make it more possible to control it. — You do really seem to be very [illegible] and I cannot but wonder if you were [illegible] all the time I was at [illegible] [illegible] without my suspecting it. It is lucky that you were not [illegible] as delegate and that you [illegible] [illegible] [illegible] to hold communion on equal terms with us [illegible] [illegible] again. — Another letter from my [illegible] came this afternoon. [illegible] and [illegible] in its expressions [illegible] compliments which [illegible] as [illegible] with the first one [illegible] interesting passages. He addresses [illegible] and then writes over the address [illegible] [illegible] translation as [illegible] reads [illegible] long [illegible] Benj. [illegible] Esq. [illegible] dearest and [illegible]" He does not write so much as before about his [illegible], the widow, but says he sees her nearly every morning, but [illegible] him always [illegible] a house so that [illegible] independently and [illegible] from the [illegible] of [illegible] in law," and [illegible] her hundred thousand [illegible]" He cannot afford to [illegible] in that way, and I [illegible] meantime that [illegible] [illegible]. The letter was [illegible] dated the [illegible] of July, [illegible] and it was [illegible]

[illegible] first [illegible] Mr. [illegible] at home only this the evening [illegible]

[illegible] [illegible] very well. — I did not [illegible] [illegible]



[illegible] at Philadelphia, 2[illegible]

Dear Tom

[illegible] before yesterday, & regret[illegible]
[illegible] I should have gone as I was last [illegible]
[illegible] Lizzy from my calling [illegible]
[illegible] I should be still more grieved if I thought [illegible]
[illegible] kind of things in an ordinary way will
be sent within many days.

I read Mary's letter that contains [illegible] this evening.
[illegible] I will send it back again by
I was much amused at Mary's indignation on account
[illegible]

[illegible]

Please give my wife's kind and believe me always
[illegible]

Northampton: Friday 27 Oct. 1871.

My dear Mary:

The others have no doubt already told you that [illegible] case is now hopeless; indeed we learned last night that it must have been hopeless from the beginning. We had out Dr. David P. Smith [illegible] from Springfield, a physician of very high reputation [illegible] [illegible] and he tells us positively that [illegible] is consumption and has been from the outset incurable, [illegible] nothing [illegible] could have been done than what has been [illegible] [illegible] she can hardly live longer than next [illegible] [illegible] [illegible] very weak and emaciated though still bright in her mind [illegible] [illegible] still [illegible] of her condition, but doubtless suspects [illegible] [illegible] [illegible] she was [illegible] [illegible]. Dr. Smith came [illegible] [illegible] yesterday afternoon [illegible] no doubt feels [illegible] [illegible] having apparently suggested no change in the treatment. [illegible] and speaks of you and pities you for the worrying you [illegible]; though she has never thought it desirable for you to [illegible] [illegible] [illegible] in the [illegible]. This morning at [illegible] [illegible] was [illegible] [illegible] [illegible], the [illegible] [illegible] and [illegible] more than [illegible] [illegible] [illegible] [illegible] worry when she [illegible] [illegible] [illegible] [illegible] [illegible] there she has [illegible] been [illegible] her [illegible] [illegible] [illegible] [illegible] and no apparent great change in the [illegible] [illegible] [illegible] think of you with [illegible] [illegible] all agreed that you ought [illegible] [illegible] very [illegible] that [illegible] [illegible] [illegible] [illegible] happy [illegible] away [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] could [illegible] [illegible] [illegible] [illegible] [illegible] comforting [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] ice [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] will [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

Southampton 3rd Oct. 87.

Monday

[illegible] today. James and Lizzy and all [illegible] Lizzy had written you last Tuesday to [illegible] I am still waiting [illegible] that she has so far been very well free from [illegible] that she may be spared [illegible] pain [illegible] and this feeling is relieved by [illegible] third at times, and this is relieved by nothing [illegible] the inflammation. But fortunately she sleeps a great deal at [illegible] pain. By Saturday afternoon she began to think herself [illegible] she talked with James about dying and [illegible] the next day [illegible] the inflammation [illegible] well, and of course nothing is said to [illegible] Many [illegible] the swelling had gone down [illegible] the swelling seemed no better [illegible] swallow a few drops of [illegible] seemed [illegible] that she asked Lizzy [illegible] Monday and [illegible] that she hoped you would [illegible] the end of your first year, [illegible] although her mind [illegible] to help towards keeping her [illegible] yesterday as if she could [illegible] that she has to [illegible] that the [illegible]

My Dear Mary:

Washington D.C. Feb. 15th. Friday.

Being too unwell to write you since Monday was a week ago, I am thankful to be able to do so to-day to acknowledge for the receipt of your favor of the 7th. of last month, which came yesterday. Mother still grows weaker and not so rapidly as before we last wrote, indeed there is now but little apparent change in her to-day. She still sleeps a great deal and soundly. Her appetite, for example, she keeps very well indeed, and to almost all day yesterday, eating of at intervals of about two hours. I still attend the various wants, given medicine &c. and especially bathe with rum or with cologne. She did not sleep as well as she had done in the day time. Nearly every hour & will be, I returned to her bedside. Mother has been from time to time all along for a year or two. Yesterday morning Mrs. Keyser came by chance from Baltimore and was there when I awoke & prepared as for some as usual and [illegible] from the bed. [illegible] has been lifted by me from the bed [illegible] time to time [illegible] I have kept a [illegible] wanted already almost [illegible] and the table from time to time [illegible] Mary will come [illegible] Mary Lizzie Bogle. Charlie Johnson [illegible] not be [illegible] Father hopes you will come back when you can [illegible] possible. [illegible] will be glad to see you [illegible] quite probable about coming at any particular time [illegible] would be a very suitable woman to take your place. [illegible] the boy that is living with me a short time in the spring. You [illegible] I can think of that she would probably with be paid for her services [illegible] they are worth, perhaps more than you value your services; but that might

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[illegible], Mo; 3 Nov. 1871.

My dear [illegible]:

Your favor of the thirty first reached me here only yesterday.

Your inquiries are rather in [illegible] special line, and I really know how to answer them very definitely. [illegible]

[illegible] in the [illegible] of the Engineering and Mining [illegible] (formerly [illegible]) [illegible] a [illegible] of [illegible] and [illegible] be [illegible]. [illegible] [illegible] you would [illegible] find the new Report on [illegible] Mining [illegible] of the [illegible] Coast, a volume of [illegible] [illegible] [illegible] of [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] by Hague and [illegible] full [illegible] [illegible] especially [illegible] manufacture and [illegible] [illegible] your friend (as I believe he is) Prof. [illegible] could give you details about the apparatus needed for gold and silver [illegible]. So could Dr. [illegible] of the U.S. Mint at [illegible] [illegible]. If I were in Philadelphia I could either look after the matter myself and make out a list of articles, or could get my friend your former correspondent, W. E. Koenig, [illegible] Chemical Works, [illegible], Philadelphia, [illegible]. [illegible] friends of mine there could perhaps tell [illegible] gold [illegible] in use.

I was sorry to miss seeing you last summer in Philadelphia, and [illegible]. I have [illegible] times passed through New York since [illegible] [illegible] able to call at your [illegible] in business hours.

[illegible] of my being [illegible] much since [illegible] [illegible] serious illness. [illegible] and [illegible] her death [illegible]. The trouble [illegible] cancer in the oesophagus, [illegible] [illegible] [illegible] for some time [illegible] [illegible] [illegible] [illegible] [illegible] and [illegible] [illegible] [illegible] [illegible] me. [illegible] [illegible].

Northampton, Mass, 6 Oct. 1851.

Professor Wm. D. Whitney,
Corresponding Secretary of the American Oriental Society,
New Haven.

Sir:

I have the honor to acknowledge with many thanks the receipt yesterday of your letter of the 23d ult. of last month giving notice of my election to the American Oriental Society; and am very happy to become a member.

I enclose herewith a post Office money order in your favor for five dollars as my first annual assessment according to the by laws and constitution.

Sir,
Your most obedient servant,
Benj. Smith Lyman.

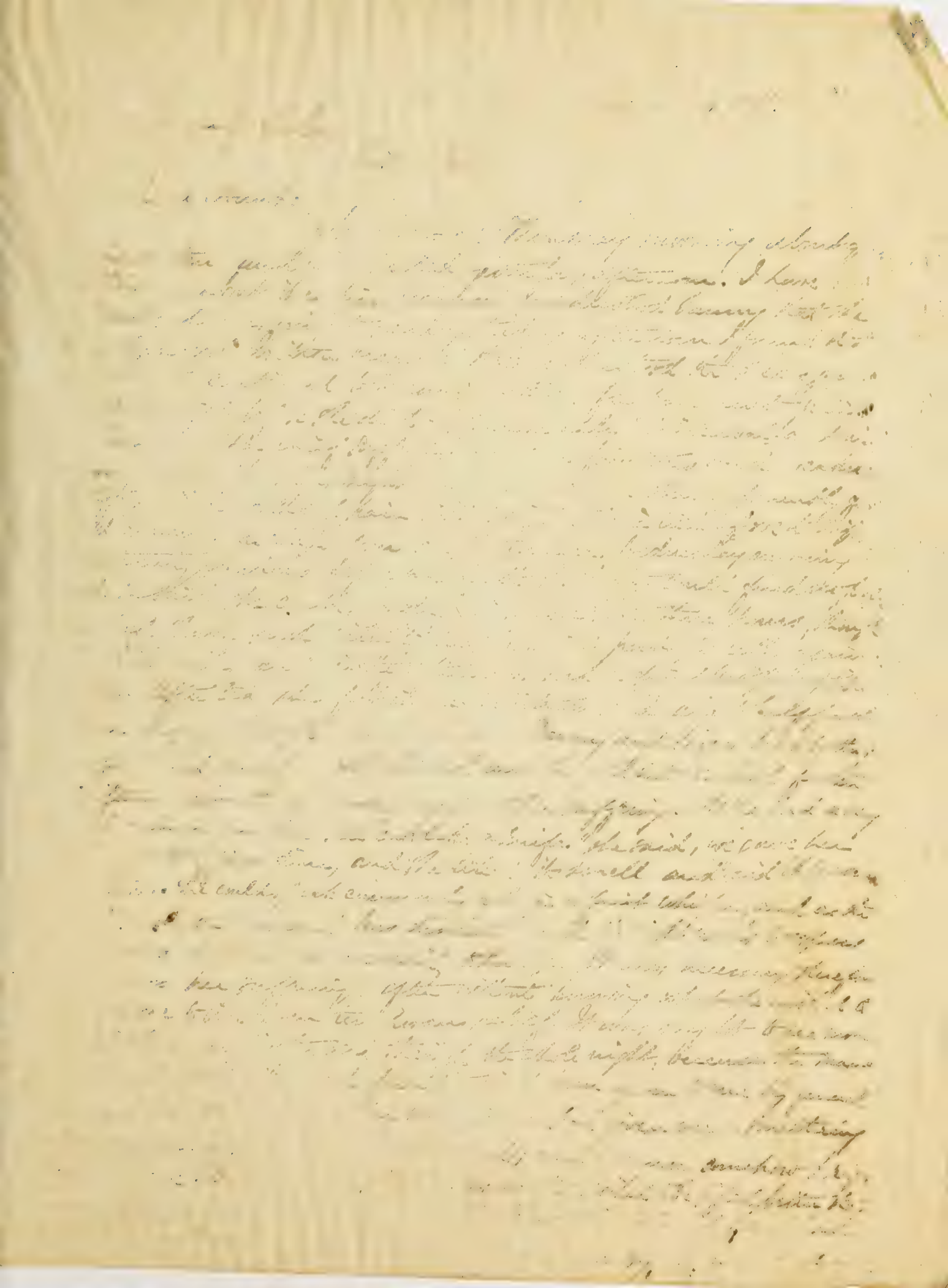
[illegible] constantly occupied in her care of Mother and [illegible]
[illegible] that she has not found time to write and I believe cannot
[illegible] say, but I feel we must wait for her. She has borne up finely
[illegible] so far and I trust will continue [illegible]
[illegible] friends, though we cannot be much gratified.
[illegible] first half of the night until two, and James the last half
[illegible] sleeps in a bureau drawer. [illegible]
[illegible] comes in to sit up, but we can't have it. If we were rich
[illegible] she gets comfortably a good deal of sleep, but I might better have
[illegible] had one to hire. We obtain [illegible]
[illegible] night and every [illegible] endures a good deal of pain
[illegible] it. Last night [illegible] I had to call to her repeatedly, at one
[illegible] time, before she heard me, and Lizzy [illegible] trouble. "No,"
[illegible] she says, "I can [illegible] and I will keep still and
[illegible] slept till past six. Two or three nights ago, she continued sitting
[illegible] some early in the night and when [illegible]
[illegible] at the couch. But sometimes [illegible]
[illegible] after. Then [illegible] she had lost her reason. [illegible]
[illegible] Lizzy got up [illegible] her some medicine; [illegible] natural
[illegible] voice: "Up [illegible] Lizzy! I struggle and struggle [illegible] and broke
[illegible] down! Will [illegible] I [illegible] together [illegible] some times
[illegible] upon the weakness of [illegible] then, as I do now, a Christian often, and
[illegible] upon the physical [illegible] sometimes. But two nights ago I
[illegible] heard her telling Lizzy [illegible] if Father [illegible] enough [illegible]
[illegible] sister could [illegible] a few days [illegible] and Lizzy
[illegible] say, that there [illegible] sometimes. But it is true that her mind
[illegible] though clearer is not long [illegible] only at times
[illegible] She is pained in her head [illegible] and particularly, it becomes very
[illegible] much her suffering [illegible] and makes her feel
[illegible] anxious and [illegible] to everything. [illegible]
[illegible] think of course much affected from the beginning of her illness.
[illegible] [illegible] here every morning
[illegible] and to stay all day, [illegible] Lizzy at times
[illegible] the care of Mother. [illegible] to tell how
[illegible] and Lizzy [illegible] it may be for
[illegible] to-night [illegible] Dr. Hunt [illegible] there would
[illegible] when Aunt [illegible] and last night [illegible]
[illegible] Mr. Henry Hinckley [illegible] sitting in it
[illegible] [illegible]

Northampton, May [illegible] 18[illegible].

My dear Miss [illegible]:

Mother died yesterday morning [illegible]
quarter past ten, after [illegible] a [illegible] of [illegible]
[illegible] a night of great agony. [illegible] that night her [illegible]
[illegible] had been [illegible] little, only at intervals and
not lasting long, but relieved by bathing with rum or oil or
[illegible]; the suffering had been mostly from thirst and [illegible]
[illegible] weakness or fatigue and some soreness from [illegible]
[illegible] always on one side or on her back. But the last night
the soreness became [illegible] great and the [illegible]
[illegible] in her side and [illegible] and chest and her [illegible]
[illegible] very uncomfortable. [illegible] gave her ether for the first time
[illegible] liked the smell and said it lessened the pain and [illegible]
would fall off to sleep for fifteen or twenty minutes at a
time, only to awaken [illegible] to her suffering again. The
doctor [illegible] four hours before her death could find no
[illegible] and [illegible] hardly live three hours, but she
[illegible] [illegible] and slightly [illegible]
[illegible] in the morning. The [illegible]
[illegible] all, [illegible] we
[illegible] but she revived again, and continued
[illegible] with [illegible]
[illegible] again. She fell [illegible]
[illegible] but was unable to [illegible]
with nor [illegible] and [illegible] until [illegible]
[illegible] she could only [illegible] in a [illegible] whisper except [illegible]
[illegible] and her articulation was [illegible]
[illegible] the [illegible] phrases
[illegible] as that we [illegible] understand
[illegible] to be raised up a little, to be rubbed with [illegible]
[illegible] her [illegible] wet with it, and to have ether.
[illegible] a [illegible] after [illegible]

Northampton, Mass. U.S.



Mr. S. Reber,
1008 Eight Street, Philadelphia.

Dear Sir:

I have just been informed by Mr. Hartley of your desire to get me to do. I called at your place a couple of hours before I came away from Philadelphia, but did not find you.

Will you be so kind as to send to Prof. Lesley's house, No. 1008 Clinton Street, and get the [illegible] and sets of mine of the Pennsylvania Old Lands and photographic it on the same scale as the original. If you send one here (Camp Cadyville, Cayuga Co.) a proof copy, so that I can have first the needed corrections. You do not undertake to touch up the negative or the stone in the least before sending the proofs. I expect a considerable number of copies to be printed, say 1000, for myself and for Mr. Frank and to [illegible] number will go to Berlin, and I should be glad to have [illegible] Please let me know how you would like these [illegible] Please tell me what you would charge [illegible]

My dear Heller:

Last Thursday my poor Mother died morning after a night of great suffering. The disease was a cancer in the [illegible] gullet and stomach which prevented her from swallowing anything for about three weeks before her death. She had been failing steadily for [illegible] months, but it might be said that she had a sharp pain and [illegible] but she suffered less and was less restless than [illegible] months. Until Wednesday morning she was able to be about the house, and on one occasion [illegible] to walk as far as the corner and back. — I left Philadelphia the same afternoon that I saw you last, and it was lucky I did; for the next morning I should have got a letter asking me to come and telling of the hopeless nature of the disease which had only just been discovered.

I now expect to stay in these parts until after Thanksgiving, the last day of November; but shall probably go to Philadelphia some days after that. I shall get some blocks in a day or two and make the drawings on them, already for cutting, from [illegible] and I will [illegible]

Northampton, 14 Nov. 1871.

Dear Mr. Lesley:

I am thinking of staying away from Philadelphia until after Thanksgiving (26 Nov.), mainly because [illegible] is the meeting of the American Institute of Mining Engineers at Troy and Albany, N.Y. [illegible] I shall make for your [illegible] and [illegible] and [illegible] but can hardly promise it. If you [illegible] with me [illegible] Lyceum. Also if you [illegible] field that you [illegible] be best for me [illegible] at my home [illegible] Thanksgiving [illegible] you.

[illegible] I would [illegible] office & Boston? I have long wished [illegible] Northland, especially near [illegible] if a direct call [illegible] I can [illegible] became [illegible] Philadelphia. Perhaps after [illegible] Science in America would [illegible] stamp; and I should [illegible] Mary's absence in [illegible] and [illegible] Such [illegible] the year [illegible] and [illegible] would [illegible] [illegible] Calvert [illegible] [illegible] [illegible] [illegible] for it.

Mrs. Annie L. [illegible]

No. [illegible] [illegible]

Dear Annie:

My wife died [illegible] last Thursday after a long & painful illness, she started out to [illegible] a cancer in the throat, so that she could not swallow and died for three weeks almost, and finally starved to death.

I am writing to let you about here all of the Hanks family, will come to [illegible] day of November, and I would like to have my letter forwarded to me as usual to the same address as before.

Hoping that you and all your family are quite well, I remain

Very truly yours,

Benj. Smith Lyman.

[illegible]

[illegible] [illegible],

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] attacked with varioloid, and I almost [illegible] [illegible] to [illegible] Philadelphia right away [illegible] that I [illegible] [illegible] and I am very sorry that I should [illegible] [illegible] [illegible] [illegible] moment. I have been meaning [illegible] [illegible] [illegible] after Thanksgiving (to-day) [illegible] [illegible] [illegible] [illegible] [illegible] and Lizzy [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] here is [illegible] [illegible], and [illegible] [illegible] than [illegible] [illegible] as [illegible] as may be. Well, if I could really be [illegible] service to you, I beg you will let me know, [illegible] I may go on to Philadelphia [illegible] [illegible] came [illegible] [illegible] for Thanksgiving Day. [illegible] [illegible] [illegible] write on account of the danger of sending [illegible] [illegible] letter; your doctor would doubtless see [illegible] [illegible] [illegible] for you if he thinks there is any [illegible] [illegible]. For my own part I should have no fear of [illegible] from the disease and [illegible] not hesitate to go to your house for that reason. If [illegible] [illegible] get the doctor to telegraph I would go all the quicker. I [illegible] all this because you [illegible] to me in your position almost [illegible] with so few intimate friends in Philadelphia whom [illegible] can [illegible] on in such an emergency. And it seems as if I [illegible] [illegible] your next male friend [illegible]. I am proud [illegible] so and really hope you will not hesitate to [illegible] me.

[illegible] mother died [illegible] days ago after a long and distressing illness and [illegible] suffering. She had been [illegible] [illegible] [illegible] [illegible] [illegible] pain, though the disease was [illegible] [illegible], [illegible] [illegible] a good deal from [illegible] [illegible], fatigue, soreness and [illegible], for the [illegible] [illegible] nothing for eighteen days and [illegible] [illegible] [illegible] time [illegible] her death [illegible] [illegible] from [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible], it is frightful to look back on.

[illegible] that [illegible] sister's attack may not [illegible] [illegible] [illegible] [illegible] [illegible] [illegible].

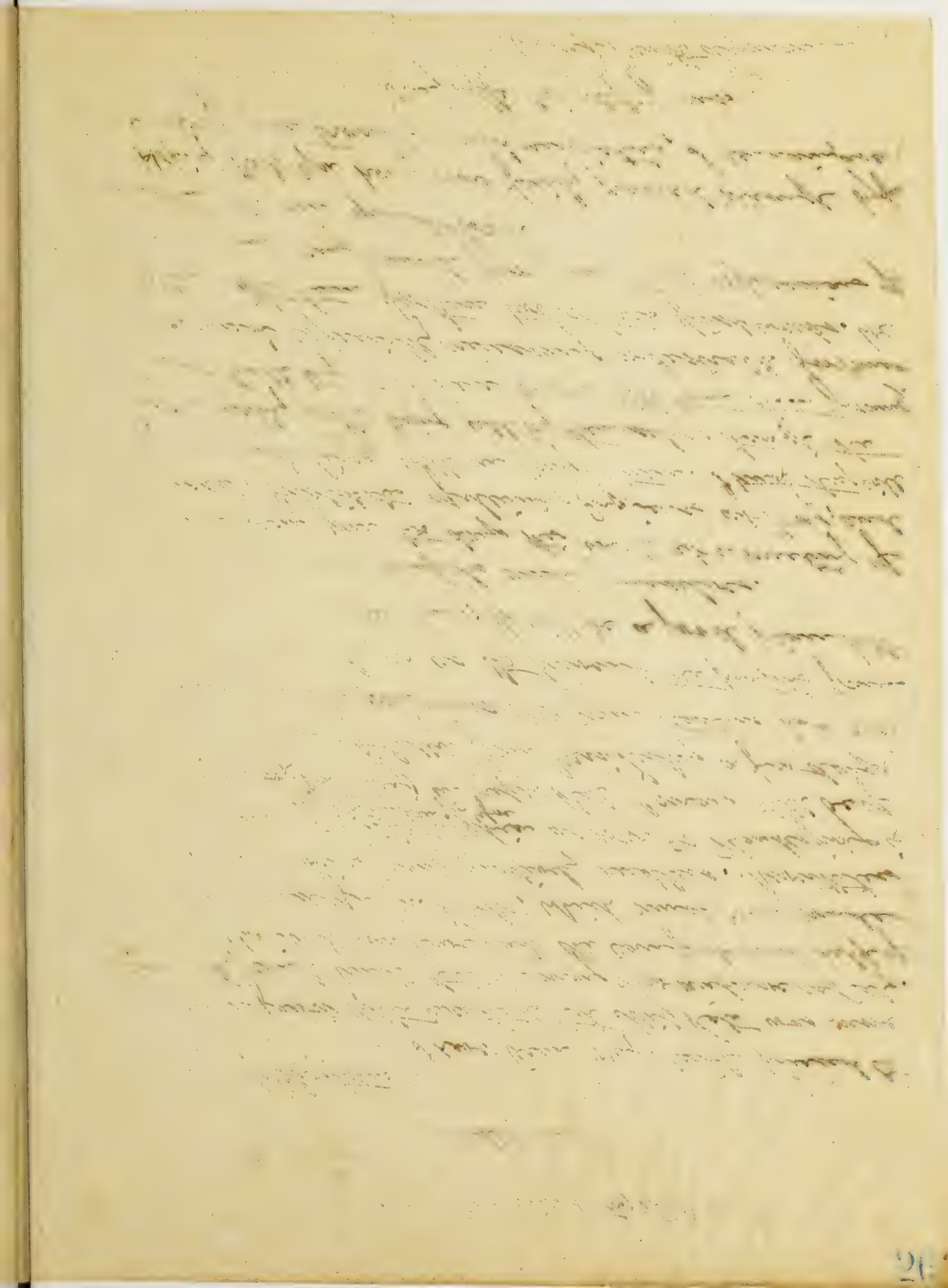
Very affectionately yours [illegible] [illegible]

Northampton, Mass. Nov. 1871.

Miss Susan I. Lesley,
1004 Clinton Street, Philadelphia.

My dear Aunt.

I owe you many thanks for your letter from Saturday, just received and the one of October [illegible]
[illegible] Mr. Lesley and tell him that I paid my initiation
fee & the Union League on my arrival in Philadelphia the
last time when I was notified of the election and at the
same time I paid the assessment for July & Sept
[illegible] the receipt is among my
papers in Philadelphia. I was much grieved to hear of
[illegible] leaving the world so suddenly & almost
[illegible] I could do for her or her
[illegible] if I were almost helpless
[illegible] reasons for staying here.
In case I can be of no practical use, I have delay as
[illegible] I hear from them. I am very glad to
be taken home arranged & region the school is in
[illegible]; it will [illegible] the advantage of [illegible]
but that of the [illegible] as well as other fields.
[illegible] Lesley's opinion about [illegible] evidence of my removing
[illegible] after only Sunfishes [illegible] was done, any one at first
[illegible] & I felt it might [illegible] twice. I must
[illegible] certainly [illegible] until I am
independent [illegible] geological field work. At present I
am [illegible] as much of it as I can [illegible]
[illegible] been [illegible]. It is related on the map of Pa that Pa
[illegible] is [illegible] for $25000; but it is not true. [illegible] have been re-
[illegible] is required [illegible] carried on by Mark Edwards [illegible] is a little
[illegible] and [illegible] the A & the Allen will quite fill [illegible]
[illegible]



(illegible) Oct 17th

My dear Miss Clapp:

I have to thank you very [illegible] for Father and Liggy) for your and their kind expressions of sympathy in your great sorrow and affliction. I am thankful to [illegible] that Liggy is with you, for I feel sure that you will do all in your power to kindly supply to her the place of a mother. I have indeed been thinking of you very much since I received the sad news, and as I can in a measure realize your feelings. I have had many friends [illegible] and as I am in a manner [illegible] I should hasten home as soon as I can see if I cannot be of service to you. [illegible] Liggy [illegible] Thursday [illegible] really some reason for staying [illegible] is already more comfortable and I can [illegible] I may not rightly influence [illegible] to remain at School in another [illegible] to [illegible] Miss Clapp [illegible] Liggy [illegible] Miss Mary is with them now and so will [illegible] who came on from New York with her [illegible] and Liggy are well and Liggy in particular seems to be [illegible] after [illegible] I am [illegible]

Northampton, Mass; 25 Nov. 1871.

Messrs. Kehn & Dikes,

No. 229 South Eighth St, Phila.

Gentlemen:

Your favor of the seventh, and the proof of the map has come duly & I am glad to know you like it. I am very well satisfied with the whole and the corrections must have been extremely well executed; but the lines and letters have in some places run together a little so that some of the [illegible] are obliterated. In some places lines [illegible] the parallel lines for roads [illegible] I will be [illegible] and as that will be rather a delicate [illegible] I should like to do it myself & be present when it is done. So if you please we will let the matter rest until my return to Phila. [illegible] a week hence. I shall no doubt want a thousand copies (more or less) of the map. Will you kindly name your lowest price for the same.

Very truly yours,

Benj. Smith Lyman.

[illegible] 25 Nov. 1877.

My dear Mr. Lesley:

A letter reached me yesterday from [illegible] which he asks me to give [illegible] [illegible] his [illegible]. He gives an account of [illegible] [illegible] [illegible] [illegible] and [illegible] of those he found [illegible] [illegible] [illegible] [illegible] for his [illegible] [illegible] [illegible] these promising lands which [illegible] [illegible] a little money [illegible] "If I knew any [illegible] [illegible] [illegible] [illegible] [illegible] would [illegible] [illegible] [illegible] in [illegible] some of these [illegible] [illegible] [illegible] property [illegible] [illegible] that the [illegible] Operation. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] I have heard [illegible] [illegible] [illegible] [illegible] been taken up by the Washington [illegible] [illegible] [illegible] Mr. [illegible] interested in [illegible] [illegible] [illegible] Street and [illegible] [illegible] [illegible] [illegible] tells me that he [illegible] [illegible] [illegible] I have [illegible] him before [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] field [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] to be done. — I [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

Northampton, Mass, May 30th 1871.

Mrs. Annie Bull

No. 1305 Fourth St. Philada.

Dear Annie:

I am very much obliged to you for your letter yesterday, and glad to hear that you and all your family are well.

I expect to reach home from Friday night about half past ten or eleven. Please tell the Ford man if you see him, that I shall not be home to-day.

Yours truly

Benj. Smith Lyman.

Mr. A. Bull

No. 1305 Fourth St. Philada. Pa.

May 31st 1871.

Dear Annie:

Thanks for your favors of the 29th and 30th received yesterday. I was sorry only to hear that Willie was ailing. I did not see Dr. Darrach after all. Besides I thought there might be some delay in getting your letter if you had written and I did not wish to do anything in the matter without consulting you. I can no doubt communicate with him in writing, just as well.

I expect to reach Philadelphia on the morning train Friday night and will expect to see you on Saturday.

The thermometer this morning has been down to four degrees above zero here; and I have to do a little coaxing yet with that hard coal fire, which will not yet, I suppose, be respectable enough for the Thanksgiving dinner. Mr. Lyman had a ball the size of a pea on the 24th.

[illegible] [illegible] all my work, I must be ordered off a little [illegible]
[illegible] before that. She [illegible] take her
[illegible] with us before very long so as to give us the benefit
[illegible] Dick Otis is dying [illegible] thought [illegible]
said that Mary [illegible] nurse, had been of very great service
[illegible] When the disease began they went
[illegible] some took place unless it was in a street
[illegible] and exhibition they made across the Schuylkill just
[illegible] weeks before the beginning of sickness. None of the others
[illegible] suffered from the disease, they were vaccinated at
the same time with Kate and successfully. The disease first
showed on a Friday and was announced Sunday morning
on Monday one of their two servant girls said she must
go home and did so. She is still there with them and
quite healthy. The house is very carefully disinfected with
[illegible] acid and Miss Kate is in the third story, so there
[illegible] danger of [illegible] home. — Heller, my instrument
maker says he could, really as a favor to take up the manufacture
of Solar compass next month and is anxious to do it.
I suggested putting it into the hands of another manufacturer as he was so much taken up with other matters, and he said he thought I really advised him to do it. But I shall let him make it, and shall wait. — The weather here has been cold and today is stormy, but the snow melts as it falls.
I saw Mr. Trautwine yesterday afternoon and he made me a present of his new book just published. It is a pocket book of [illegible] pages of fine print with valuable tables and formulas [illegible] capital book on all subjects that concern Civil Engineering, [illegible] very valuable indeed. — Ally [illegible] for [illegible] Mr. [illegible] are with us this Sunday morning. Call [illegible] and inspect [illegible] visit during afternoon.

Please give my love to Lizzy, and believe me, as ever

Affectionate Son,

Geo. Smith Lyman.

No. 135 South Fifth Street, Philadelphia, 5 Dec 87

Messrs Evans Cog.
de Clark Litt. Eng. & Printing Company.

Gentlemen:

I send you today by Adams Express my wood engraving of Lee in, and would like you to make me earliest convenience an electrotype exactly the same size on the same scale. I have seen and admired the work you have done for my particular friend Rogers, and I apply to you by his advice. I wish now to circulate a considerable number of copies of the map, to send some in India, where they use the Photozincographic process, but I have less success than you work yourself, and would like to see them do how much better yours is.

Please return the map and the plate and your bill by express C. O. D. as soon as you conveniently can.

Yours truly

Benj. Smith Lyman

Miss Lyman continues to ride once a
day. She is still confined to
the house as much as possible, and
will be much pleased when
[illegible] evening when
Patrick Lawrence [illegible]
and inquired [illegible]
last week [illegible] pupils have all
in now only two days, and
and the
be expected to attend to her
Emily Dudley is still pretty comfortable,
this evening if
[illegible] Mr. Francis Freeman Dudley,
and the [illegible]
[illegible] Mr. [illegible] is finishing his
and Mary has gone and this home
had been a little [illegible]
[illegible] afternoon at home of Miss Old Letty
[illegible] and came across
[illegible] Among other things for sale,
[illegible] Miss Lyman the collar
[illegible] last summer, [illegible]
[illegible] it [illegible]

surprise and curiosity in my mind &c. has entirely stopped from my mind when Benj. Lyon of Montreal told me about a man I saw here [illegible] years ago.

Last evening I was at the weekly meeting of the Academy of Natural Sciences. Mention was made there of a kind of toad in Arizona that [illegible] with blood (or something that looks like blood) from its eyes when annoyed or at a means of self defence. There was also an allusion made to [illegible] parasitic fish, or "free boarders," in the sea that not only go into the mouth of a certain kind of fish, their host, but go down its throat into the stomach, take a meal there, and return to the mouth again. They swim in this way with a vengeance. It is a much reversed idea of "free board" than that many clerks get in Berlin.

[illegible] very cold here, 20° yesterday morning and 30° today, with a stiff breeze and [illegible] still colder than I've known it [illegible] this last week in the Dominion.

I am still revolving plans of travel in my head, and [illegible] I am reading, singing, and not writing

[illegible]

Dear Sir:

Please send me one cord as early as convenient delivered of Lorberry Coal, and oblige forwarding your note; & if you have none of Lorberry some free burning coal as near like it as you can, and oblige

Yours truly,

Benj Smith Lyon

155 South 7th Street, Philadelphia, 9 Dec. 18[illegible]

Dear [illegible],

We [illegible] have come back to Philadelphia after [illegible] visit at [illegible]. I stayed with [illegible] and [illegible] until after Thanksgiving, but then [illegible] to come here [illegible] because [illegible] sickness; for you must [illegible] the [illegible] of our [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] nothing very [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] twice a day [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible], but after [illegible] [illegible] another [illegible] under the [illegible] [illegible] [illegible] now with [illegible] [illegible] [illegible]. [illegible] Mary was here and has been of great [illegible], and after a week or so [illegible] [illegible] [illegible] here ever since, also of great service, and [illegible] after [illegible]. [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] after [illegible] [illegible].

[illegible] [illegible] Emily [illegible] [illegible] [illegible] indeed. She has [illegible] [illegible] [illegible] and [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] was not known outside of the family. She so was
up she could walk out but not after [illegible] that
that pulled her down. She is [illegible] more comfort
the, but there now seems the an[illegible] in the leg
and she suffered much from it to[illegible] and
an incessant deal of sharp pain, and we [illegible] distressed
to undergo much more of it. She also [illegible] attempt
from Electric currents. — The wife of Dr. Henderson (Mr. Lesley
old friend) a very charming woman, whom you may have heard
had a cancer too under or on her arm, and is sinking fast
Both She and Emily Lesley have tried without success the
many cumberings claimed to be a specific for cancer. Dr
Henderson thought at one time that it had a favorable effect
— Before I left Northampton I heard much about Miss
Hamlin Shepard who was dying in Philadelphia of cancer in the
[illegible] I have heard nothing about her. It is
a frightful disease indeed. Mother seem to have suffered
far less pain that was caused immediately by the cancer
than often for years.

We had a very pleasant, still Thanksgiving. We missed
you and James very much of course — as well as Mother, but
just managed to keep as cheerful as we could; and the
day passed off more pleasantly than we feared it might.
It was very cold that day so that it was quite a [illegible]
in the dining room, and we from adjoining [illegible]
stove to the parlor. The winter has begun [illegible], and very
bitter, both in Newfoundland and Labrador; [illegible] there is nothing
that often a one [illegible] map.

I left Baker and Lizzy quite well, as the first of December
Lizzy was looking much better than she did three weeks before
that, and I trust now that she is so nearly restored to health
health and strength that there is no danger of her falling ill
in consequence of the fatigues she endured. I have heard nothing
from Mr. [illegible] but as they do not approve of very frequent writing
when [illegible] no news is good news. I think I shall go again to
see [illegible] first week in January.

135 South Fifth Street, Philadelphia, 1862

Dear Lizzy:

Your favor of day before yesterday came very welcome this morning, for I was getting almost anxious from not hearing since I left Northampton. I am very glad to hear that you are both well and that you have no worse news from Sissy — I have still three negatives of views of Northampton that you speak of, and will have some of them printed as well as some from similar negatives which I have taken. The negatives are very poor and [illegible] pictures, and I have therefore been in no hurry to have them printed; and frankly as regards the Right to Options that would have been to me a good part of the time since the prices are [illegible] the printing shall not now be at your options as regards it may be.

[illegible] day evening I took tea at the Lieberg and afterwards [illegible] Hare & the Emily Lieberg. She was lying on a sofa [illegible] as James read during his sickness, and she [illegible] and as usual in the fore; and she has been [illegible] comfortable for some days. She seemed [illegible] and talked very pleasantly. She astonished [illegible] for the moment that Lizzy Bellamy [illegible] married in Stuttgart to an American, [illegible] scientist named Hilford, who had [illegible] of much means. So now

your plan for us taking Mary's place as [illegible]
Hibbard is not at Berlin after all this winter, to [illegible]
of Sea ice. I am glad that Mary has seen more of
Mrs. Hirschfeld, and can find her acquaintance with her
[illegible]

Addie Lyman continues to improve in health and has a
good appetite now and has walked a little across the room and
[illegible] meals. Herbert continues well. Mrs Hart
[illegible] & Herbert to Saturday. The plan is to have
the house well aired as well as disinfected thoroughly
[illegible] school come back a bit after the Christmas holidays.
[illegible] Kate & Jo & Newbold & Jessie & Mrs Lyman
[illegible] Mary & Ring & Mary. There has not been much
[illegible] that I could do for them. Among other things I have
called [illegible] two of the assistant teachers & have found them
[illegible] I was getting on, quite an agreeable set of
[illegible] young ladies and one of them very attractive
[illegible] very cordial. The small pox is diminishing
[illegible] there were 199 deaths last week only thirty four
[illegible] before. The Lockyers have been over with Small
[illegible] the next (3 cases in it), and from their des-
[illegible] quite anticipated that the little Chinese
[illegible] I went from Foochow to the Pleasure
[illegible] Spring, a trip of two & a half hours, had the
[illegible] I suspected at the time.

Please give my love to Father and believe me always
Your affectionate Brother
Benj. Smith Lyman.

My dear Pa:

[illegible] 15th [illegible] Philadelphia, Dec 9

My dear Sanborn:

I can [illegible] on receiving [illegible]
another birthday and [illegible] you many happy
returns [illegible] remain
[illegible] and you at length receive a [illegible] more
[illegible] being my first [illegible] I have to be [illegible]
as [illegible]
[illegible]
[illegible]
[illegible]
[illegible] I am, however, [illegible] will [illegible] me.

[illegible] leaving [illegible] I meant [illegible] particularly what you said [illegible]
Republican, [illegible]
you [illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]
[illegible]

— Mrs. Joseph Leeby, a very pleasing young woman of
twenty eight is afflicted with a Cancer under the arm, and
is already so far gone with it that the coroner may
weekly. She suffers at times terribly from acute pain. She
is staying in the City at my request and will probably
never leave her room again. She has two nice little
boys to leave behind. Their home is in Centreville out on
the [illegible] Rail Road, of which her husband is
Secretary. They had condolences expressing the
sad [illegible] but without any request. Mrs. W. Keen
sent a particular friend (as well as [illegible] kind offices
during, also is dying of a cancer [illegible] in the same
place, and also sent Condolences [illegible]
Yesterday is a Surgeon in the navy in Civil Service and
was able to get home after the duty as long ago as last spring
and has given it a very thorough trial; & which he thought
it had done good effect. Mrs. Joseph Leeby [illegible] Chloroform.
some relief from the use of electric currents. Perhaps
all this [illegible] bitterness is [illegible] with without dying but you
see from how much I have to be grateful still.
I will end [illegible] cheerful item as Mr. Leeby writes
a Mr. Lesley that at last Saturday's Stock Exchange one [illegible]
Entrance; it was marked down for many years with [illegible]
Mr. Lesley [illegible] Times.

[illegible] I have (to-day) I left [illegible] I found the
parcel [illegible] I received by mail with [illegible] Williams's Sabbath
Mrs. [illegible] of medicine I read it beyond a few lines; but then
to be [illegible] and [illegible] gives a detailed [illegible] original [illegible]
[illegible] the [illegible] of a [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

125 south Tenth Street, Philadelphia, 17th

My dear Father:

I am quite shocked to hear by yesterday's mail of Henry Hinckley's sudden loss of his father. It seems parallel in many respects to Richard's loss of his father two years ago. — I should like to get Talbot to paint your picture if I might do, if it could be got for a moderate expense for the plate — & I should much prefer a medium expense for the plate — because that I can work it myself, and in my own style. I think with [illegible] articles, and the [illegible] expense could well be [illegible] cost. The plan however, might be changed if as better plate could be got. Have you looked at all at [illegible] near the Elm street end of the city, or the grounds near [illegible] just back from the Meeting on Arch st? There is a very fine view there towards the river and [illegible] Inn; and the high ground on either side would [illegible] prevent the near neighbors of us from [illegible] by the way I would [illegible] necessary for [illegible] to take right in upon us; [illegible] of course [illegible] should be [illegible] in the [illegible] Side or a [illegible] case I am planning might be [illegible] there [illegible] hill and [illegible] the rocks [illegible] Turnbull [illegible] I should greatly [illegible] some such [illegible] with a wide [illegible] the

Kind & would be with impatience to conceal the pain
would like to buy a place, we [illegible]
the place has been sold. Perhaps the Friendlys
be willing to feel round for you & look in round to
see if any desired spot; and finally perhaps
can strike a bargain. But Uncle Edward may wish
to wait, or at least be consulted first.

Aunt Lyman continues to improve steadily in her
health; [illegible] & she walks
[illegible] and sits up a good deal. She
[illegible] & New York very well to
[illegible] and perhaps the Woodville
[illegible] in time for the first of February.
Emily Perry is less comfortable than a week
or two. A few days ago she was so much better that
she really began to have great hopes. The rest of the
Lodge are pretty well and Mr. Perry misses Edward
to pass in better spirits and evening Mrs. L. has for
some time past. A few days ago [illegible] to Mrs Briggs
to Newark and to visit the convent in Bruce
St. They brought down from Boston [illegible] a nice looking
young American. Annie and Mrs. Perry [illegible]
a visit and has pretty constant visitors. Mrs. Bird
[illegible] in St. Her life seems to [illegible] a success. She looked
[illegible] when Annie and I remarked. I must close
[illegible] I may
[illegible] me!
[illegible] we are living in close neighborhood

135 South Fifth Street, Philadelphia, 18

Julius Bien Esq.

N. Y. Lith. Eng & Printing Company.
10 & 18 Park Place, New York.

Dear Sir:

Your favor of day before yesterday with proofs of the map is at hand. I am glad you have been successful, for your work is a vast improvement upon the other proof that I viewed, and you may send me the plate as it is [illegible]. I can still see some small [illegible] may be done at home in pencil mark, which would probably be objected to for another proof. The proof I really require already.

Please send the original drawing with the plate, and oblige

Yours truly,

Benj. Smith Lyman.

[illegible]

35 North Eighth Street, Philadelphia, 18[illegible]

Julius Bien Esq

Supt. N. York Lith. Engr. & Printing Company

Dear Sir.

You have operations and the [illegible]
original work have come safely to hand, and
send in return herewith a bank cheque money order
for Sixty six dollars in payment of your bill.

I am very much pleased with your work
and remain

Yours very truly

Engr. Smith Lyman.

[illegible] Philadelphia, [illegible]

Mrs. Susan B. Lyman
Jamaica Plain

My dear Friend.

[illegible] of the [illegible] the Came

[illegible] yesterday [illegible] with [illegible] of two

[illegible] for a [illegible] to Mrs. [illegible], "which as

[illegible] says, "it will be not only my duty [illegible],

[illegible] to perform with the [illegible]

[illegible] all the days of my life".

I know [illegible] will be greatly pleased at the gift but of course

shall say nothing of it to them before the day arrives.

I must thank you very much indeed for your

kind words about mother and her sickness. Hers

was indeed a most distressing case and it is a relief

to know that she is at rest. Yet it seems even now

[illegible] to realize that she had to meet with such a [illegible]

[illegible] little did any of us expect anything of the kind

[illegible] being twenty years since the disease

[illegible] Darley is very much taken up

[illegible] brother-in-law Joseph [illegible]

[illegible] with cancer of a very [illegible]

[illegible] Emily has already [illegible]

[illegible] destined to suffer much more; she is [illegible]

[illegible] that [illegible] will be more [illegible]

[illegible] believe [illegible]

[illegible]

My Dear Father:

I am very sorry I have to say you have
before yesterday and by saying what I do I
Rose Hill now is not well and I hope it may pass
very serious.

I spoke once with you about the matter of Mr. Fowler
at or Bappist Street; he is a very good and the neighbor
excellent. I should be delighted to find them thereby a
door neighbor as any one Northampton. But I fear you
may find the price too high on the whole, and perhaps it
will be long in rising much above the present price. It would
be desirable for the present at least from too close crowding
of next neighbors; but it might not always be so and
the lot is not very wide. Does it lie so that some of the
back land could ever be sold to some owner on Bond the
Avenue? I think as you do that the lot in front
beyond Dr. Jones's must be charming; but there
is the objection that it might be for a time hard to sell
and for you out yet would for a couple of single la
like to live. Perhaps Eliza could easily appreciate
objection fully at present. The value of property in
Boston in seems to me likely to increase in a long
proportion within ten years twenty than on Bond
Street; but perhaps that is of no great importance if a
place be chosen where they will be an attraction to
the residents in Lower Boston would be well. I

neral neighborhood [illegible]
[illegible] became in a measure
[illegible] not so already. for many families are [illegible]
[illegible] west of that.

Emily Lesley continues much about the same
for a few days past, more comfortable than usual
last week. We met as usual Sabbath. Mrs
had unexpectedly a flying visit from Mrs. Heller. She
on Tuesday morning. They had left all well at
for on the morning before and left us Thursday after
noon on their return. Mrs. Delano came
and Aunt Katy came to see Aunt Susan for a few
hours. They did not stay at the Lesleys but at a hotel
Mrs. Delano urged me [illegible] to Old Orchard Christ
mas, but I have been gone so much of late that I thought
I could hardly do it. Warren was [illegible] Sunday
morning next. — Lesley is [illegible] for Mrs. Lesley
Boat — It is probable we shall get paid for a small
[illegible] Montpelier
[illegible] he made the Virginia ten years ago last summer
for which he had assumed one half the loss of fee, be-
cause he had guaranteed in a measure the jury. The
[illegible] for whom it was made turned out a worthless
bankrupt and never paid and never [illegible]
[illegible] but was often [illegible] with for the same in-
[illegible] — seems also [illegible] we shall have to
[illegible] do as soon as the [illegible] for the new
furnaces are to be built at Reading. Packed up by the Reading
road and a good deal of [illegible] done by me. I do not [illegible]
Mr. Fisher and as I understand it [illegible]
know for I have not heard from him.

Please give my love to Lizzy and believe me [illegible]

Dear Lizzy,

What you say about your not being consulted at all in regard to the choice of a house seems to me very much exaggerated; for Father certainly will consider your opinion even if he does not put a whole decision in your hands. What you say too of his generally not taking the opinion of a woman [illegible] is extremely unjust. I think you will find few men in the world as ready as he to be led good humouredly by a wilful woman in matters less understood by her than by him.

Of course it will be necessary to get a plan for a house from an architect, with a specification; but the object from my rough drawings is merely to give definitely our own views as to how the house shall be planned, so that the architect will know what to do. [illegible] we might have to make fully a dozen plans before getting a satisfactory one, or else you might just as well use that did not suit. The plan I have now in mind as most likely to suit all is in some details quite different from either of the sketches I left with you, and was sketched in pencil on the [illegible] you [illegible] in the drawing book, and ought

anything cheaper than coal; but perhaps it will
— it would come up to Mr. Hunt's present figures. I
will send a sketch of my plan before long, but am so
up just at present with other things.

The weather here has been uncommonly cold for
this place. Yesterday morning the thermometer in
the upper part of Germantown went down to zero,
and here in the city it went to four degrees above. It
has been below only twice last winter, in January and
February; and it is seldom colder. There was only
6 inches of snow just before the cold snap and as it could
not be thoroughly cleaned from the sidewalks before freezing
them, they are extremely slippery. Today it has moderated
a little and snowed nearly all day. The Skaters
have been very fine during the freezing of the last week. We
had been fine skating on the Schuylkill, but the snow
spoiled it. The Delaware is frozen up so that vessels
cannot go up and down. — The peach stones, bundles of
seeds and trees arrived in a sailing vessel last
Saturday, and this week I have been waiting at the
Custom House, quite a complication, and getting
in spite of them being no duty to pay on it. The
Captain (an Englishman) positively refused to take any pay
for bringing the package (say a foot square) so many
miles; & the custom house fees came to $1.10 including
a dollar for carrying it from the ship to the office. Truly a
most liberal rate than the captains for bringing it from Glasgow. The
weather, after trotting back and forth until I found me three months
[illegible]

135 South Fifth Street, Philadelphia, 28 Sept.

Dr. E. R. Straznicky,
Recording Secretary American Geogr. Society,
New York.

Dear Sir:

Your favor of the twenty-first of last July was forwarded to me from Calcutta, and was just received.

It would give me great pleasure to send you a copy of my Survey Report, but unfortunately the few copies that I had have long since been distributed. I will try however to get you a copy for you from some kind whose interest in it is much greater. At any rate I will send you very soon a copy of a map finished since my return and illustrating the general report.

If I had known of your wishing to see me away as India I would very gladly have saved you the trouble of giving you my address here.

Thanking you very much for your kind words of encouragement

Dear Sir,

Very respectfully yours,

Wm. Smith, C.E.

135 South Fifth Street, Philadelphia

15 Dec. 1870

Miss. Susan B. Lippincott.

Germantown Penn

My Dear Aunt.

On [illegible] the flowers this morning, I discovered that the amount of money [illegible] was so much as I acknowledged to this that I was able to double the order that I [illegible] a few days in advance. Luckily I had put [illegible] bills which had to stick together as I misplaced into a separate compartment of my purse & there were any difficulty at all in making change when the flowers were to be paid for. Otherwise I might not have found out the mistake. Mrs. Lesley was pretty [illegible] with the [illegible] and so were all of the family [illegible] necessarily [illegible] in its results.

Most heartily wishing you and all your family all the compliments of the season, I remain

Your affectionate Nephew,

Geo. Susan Lippincott.

35 South Fifth Street, Philadelphia, 25 Dec. 1871.

Julius Frein Esq.

J. & F. Ltt. Esq. & Printing Co.

Dear Sir:

I sent you on the 18th inst. from this market a post office money order for thirty dollars in your favor in payment of your bill against me. As I am uncertain how far the post office may be involved in matters may be so kind as to return me the bill (receipted) receipted, if the same will be with my compliments of the season I remain

Yours very truly

Benj. Smith Lyman.

135 South Tenth Street, Philadelphia, 27th Dec.

Dear Rockwell:

A friend of mine in Berlin has taken some time with a good recommendation a young Ger. (twenty five years old) who writes your drawings or mine, work to do. [illegible] and time that perhaps you would like to employ him in your office and. I promised to ask you by letter whether you had time [illegible] & drawings. [illegible] If you think it possible that you can, [illegible] I will send him to you and you can [illegible] better of his qualifications in seeing him. He is a native of Nassau, the son of a miner and educated [illegible] mining school (Berg [illegible] Bergakademie) there, and [illegible] worked in the mines and iron works, and says [illegible] my friend also tells me that he is a good draughtsman, [illegible] personal appearance is encouraging. His great drawback in this country is complete [illegible] to talk English, [illegible] been here but a month. He is therefore willing [illegible] to do, so as to [illegible] while he is [illegible] the language and the customs of the country.

[illegible] would kindly drop a line as soon as you can [illegible] [illegible]

Yours truly,

Benj. Smith Lyman.

1335 South Eighth Street, Philadelphia [illegible]

My dear Fanny:

Many thanks for your welcome favor of last Tuesday, and I wish you in return a Happy New Year and many more to come. I was very sad to find and direct and would have rendered the old and worn heart glad, and delighted to know that it came from dear Fanny, and that it now reposed safely.

I am very sorry to have no encouraging news to write about dear Aunty Brown, for she seems to be getting pretty steadily. For some days after the last [illegible] said Christmas day that she thought another [illegible] which would [illegible] in a few days. [illegible] would rather pay a remittance like the one she had [illegible] for it and a good deal more. She is weaker now than she was then and may suffer her poor frame to [illegible] will no doubt be left by it in a very feeble condition. She is remarkably cheerful, and always full of hope of getting well; and her bright appearance is calculated to mislead those like her husband who see her but occasionally and do not at all realize how far gone she is. I found her on Christmas afternoon, as she lay on her rocking chair, and found her in a very pleasant humor. She had been disappointed in not being able to celebrate the day out at her home with her family, as she had hoped to do until only a very few days before; but when she had found it impossible she gave up the disagreeable complaint. Her two little boys came in town to spend the day with her, and her husband was there &c. Aunt Hannah looks well to you, but the strain is pretty heavy on her just now as the [illegible] cannot be with them for more than two days at a time. She has been absent already three days. After that she can stay [illegible]. Aunt Hannah seemed tired [illegible] day and [illegible] been up a good deal at night for Aunty. Aunt Katy and her husband were here on Tuesday before Christmas but [illegible] day of Aunt Hannah's illness. Certainly [illegible] day did not the even one meal in the house. The arrived [illegible] evening and went right to the La Pierre House.

In the morning they called on the baby and some [illegible]
the morning time, and was lively. [illegible]
after Mrs. Delano had called on me to [illegible] and
came afterwards & the house & they had to call on [illegible]
of the Hotel as had been agreed, and begged me to [illegible]
them and go with me afterwards & the three o'clock train. [illegible]
[illegible] was carried out and we met him at the station. [illegible]
[illegible] delightful several days' visit. Aunt Kate had come up
[illegible] & Aunt Susan for only three few hours.

[illegible] morning I took to Aunt Susan the direction
[illegible] Baltimore a fine bunch of flowers, and found
the children and all there in good spirits, and got and
[illegible] a pressing invitation to dine there. The girls had
all got a number of Christmas gifts, and were much
pleased with them. They had all had their part in stuffing
the huge stocking (or bagging) full of presents for Annie
[illegible] which they brought down from Broad St.
She had thought that Santa Claus would know where to
come down here in the city, but in the morning she found this
stocking and more than it could hold tied to the door handle.

On Monday before Christmas Mr. Hopper honored me with a
visit call and after asking if I was in a frame of mind to
be worldly and dispensation invited me to breakfast the
next (Tuesday) morning at eight o'clock to Harvard and had
good time. He was formerly in the habit of asking me to
breakfast now and then on Sunday morning, perhaps this
Sunday to break up the habit in his family of eating late on
that day. It did it would seem to have had partial success,
for the children came to the table pretty late,
though we sat down long past the [illegible] It was perhaps
more correct in getting up and off to bed. The Thomas
family would to Europe if [illegible] Last October and are
now in Italy. Mrs. Lucretia Smith is [illegible] the
[illegible] of late. [illegible] something about [illegible]
Blanks for [illegible] but it is not [illegible] correct or proper [illegible]
[illegible] your papers [illegible] [illegible]

35 South Third Street, Philadelphia
27 Dec. 1871.

Mr. Sherman

Secretary Harvard

Dear Sir:

Please send with the manuscript of photographs we talked of last night one dozen mounts blank. I wish three dozen for title pages and titles in the book.

Very truly yours

Benj. Smith Lyman

85 South Fifth Street, Philadelphia

My dear Abbie

Your favor of the 9th of last month came to hand [illegible] and was very welcome. I [illegible] that you were well in body health and spirits. Your Papa is so good-naturedly attending [illegible] affairs for you as well as I can do and made a fuss with me to have helped you [illegible] all you have been doing for me. Don't let the lawyers bother you by coming to you to [illegible] about my things. I sent the second protest bill of exchange to him endorsed to you and asked him to hand it to you. I believe I obliged a good deal about having [illegible] I [illegible] asked you what you wrote. At any rate even if it miscarries altogether, I should think the bank could collect it and [illegible] you as the first bank in England. The reason they were unwilling to pay it was probably that they had no proof that the second had not already been paid in England; but if necessary the money could be collected by sending the first bank in England and waiting for the return mail.

I have thought often I should have written so seldom. One reason for my not writing has been that I was most of the summer and part of autumn very unwell and a good deal miserable. My mother fell sick early in the summer, and became worse as the middle of the

[illegible] was not very badly alarmed until it was [illegible]
of her disease was discovered only two or three weeks [illegible]
death which happened on the 22nd of December. It was a
cancer in the stomach or oesophagus which at first caused
[illegible] swallowing [illegible] appeared to affect [illegible]
weeks before she died. She was among the very last [illegible]
a long lived family and her dying seemed likely to
[illegible] or twenty years more. But now we can remember
that must have been [illegible] of her age when twenty
years ago, though her health was generally deemed very [illegible]
during that time. She suffered [illegible] pain from [illegible]
with that disease, but finally died by starving, a lingering
death, and suffered a great deal in the last few hours. It was
very good luck you and Ned & I were not aboard in some dis-
tant part of the world. [illegible] George with us in Scotland,
who has always been at home or near it, happened this year
to be in Germany. I stayed with my father and other kin-
until the 22nd by this mark to celebrate on the last day
of November our favorite yankee festival of Thanksgiving
which in a measure takes the place of the English Christmas
and is always kept in New England by family reu-
nions. You are now in the midst of your Christmas
Holidays and I trust you are enjoying them to the utmost
and I wish you all a Happy New Year with all my heart
— I am going to send you in a few days a copy of a map
that I began before I left India & illustrates the general upheav-
of the Punjab hill lands; it is a general map of the whole region. It
been very much delayed in getting finished owing to [illegible]
troubles; and likewise in getting printed, for it was finished in Feb
It has been electrotyped from steel plates, and must be better than the first
printed in Calcutta. [illegible] and Rivers and Lakes are [illegible]

Dear James.

Your favor of day before yesterday
to hand; and it will give me great pleasure
to do what I can towards getting the information you
desire about Locomotive Steam engines. I think I
can get through an acquaintance of mine who is
a practical machinist and has been employed
by the largest locomotive factory here. Perhaps I may
get through him a circular with clear & this
information and also the names of locomotive builders
in New York. Some of the best and largest locomotive
engines in the country are at Paterson I believe. Perhaps the
references to the Engineer or Locomotive patents no doubt to
be found at the Astor Library may be useful.

Wishing you a speedy recovery, I remain

Yours affectionately Brother,

Benj. Smith Lyman.

Dear Sir,

Yours of the 25th ult. duly
to hand, and I will see to the matter
mentioned therein shortly. I think
it would be better to postpone the
meeting for a week or two. I shall
be glad to see you then.

Yours truly,

[illegible] South Fifth Street, Philadelphia, 1 Jan. 1872.

Dear Rothwell:

Your favor of the 28th last came duly to hand. I had a letter from [illegible] dated 13 July 1871, in which he said [illegible] plus de nouvelles de Cape ou de [illegible], j'ai cependant écrit à Rothwell [illegible] [illegible] peu avant cette guerre, et je n'ai pas [illegible] réponse de lui, je ne sais pas si [illegible] [illegible] avait parlé de ce que je lui disais à la fin de ma lettre, que j'admirais son amour persistant pour faire [illegible] pour tous les postes [illegible] [illegible] [illegible], les timbres étaient insuffisants [illegible] timbres étant annulés c'était pour [illegible] pour moi de l'argent pendant [illegible] to remain to be well and to have suffered no [illegible] during the war [illegible] months at this country and at [illegible] [illegible], which they had [illegible] suddenly on the siege of Paris [illegible] [illegible] the North of France; he himself became [illegible] comme tous les [illegible], [illegible] of Paris.

I joined your mining institute at the [illegible] meeting, being in [illegible] at [illegible].

Wishing you a [illegible] New [illegible],

---

131 South Fifth Street, Philadelphia,
1 Jan. 1872.

Mr. W. S. Laird,
Coal Dealer,
[illegible] above [illegible]

Dear Sir:

Please send me another half ton of Lorberry coal, egg size, tomorrow as early as convenient, and oblige

Yours truly,
Benj. Smith [illegible]

135 South Fifth Street, Philadelphia
3 Jan. 1872.

Dear Lambert:

The bearer of this, Mr. Ehrhardt, of Saxony, Germany, has lately come to America, and is in search of work; but cannot get to like English. He has had some practical experience in iron mines and furnaces and is, I understand, a good draughtsman, and he has studied in a mining school in Saxony. Of course he would be willing to work for moderate pay as long as his ignorance of the language is such a drawback. If you could give him a clue to any thing you would greatly oblige

Yours truly,

Benj. Smith Lyman.

135 South Fifth Street, Philadelphia
3 Jan. 1872.

My dear Mr. Lesley:

The bearer of this, Mr. Ehrhardt of Saxony, Germany, is the gentleman of whom I spoke to you the other day as anxious to find employment as a draughtsman or in connection with mines or furnaces. Any help that you could give [illegible] would greatly oblige

Yours very truly

Benj. Smith Lyman

18 [illegible] Fifth Street, Philadelphia, [illegible] June [illegible]

Dear James:

I have seen the machinist friend of whom [illegible] and found him a very good man to consult in regard to spark arresters. He showed me some drawings [illegible] by him of a great variety of smoke stacks for locomotives, most of them with spark arresters, and dating back to 1831, the spark arrester to 1833 or 1834. [illegible] of them were patented and can probably be found more or less fully described in the reports of the U. S. Commissioner of Patents, [illegible] with illustrative drawings. Here is a list of the patentees, [illegible] including perhaps by mistake one or two patents of stacks without [illegible] arresters: E. [illegible], 18[illegible]; Wm. [illegible], 1836; Duff, 1837; B. [illegible], 1838; [illegible], 1839; Jas. [illegible], 1839; Wm. T. James 18[illegible]; L. [illegible], 1840; [illegible] & Mathews, 1840; Wm. C. [illegible], 1841; B. French, 18[illegible]; French & Baird, 1842; [illegible], 1844; Radley & Hunter, 1845; A. [illegible], 1853; J. Black, [illegible], 185[illegible]; R. [illegible] 1854; Cuttings, 1848. There were besides forms by others not patented [illegible]; [illegible] C. & [illegible] R.R., 1834, 1835. T. [illegible], 18[illegible]; L. [illegible], 1838, 1839, [illegible] 1840; Wm. [illegible], 1840; Grand Trunk R. R., 185[illegible]; Wm. [illegible] 18[illegible]; J. C. [illegible], C. H. Miller 1837, 1839; T. [illegible] 1840; Jno. [illegible], 18[illegible]; Wm. [illegible], 1847; M. W. [illegible], 18[illegible]. Spark arresters were used so early in the history of railroads because of the danger in the South (says my friend) of setting fire to cotton by the sparks. A wire netting is used in all spark arresters; at first it was simply spread over the top of the stack, but as the sparks rapidly cut it [illegible] different devices have been used to prevent that. Commonly an inverted cone, or two with the point downwards, is placed below the netting; the sparks strike against it in rising and rebound sidewise and fall between the inner [illegible] pipe and the outside of the double stack. The netting was sometimes [illegible] on the circumference of the [illegible] pipe, so as to form a part of it. A form now in use [illegible] netting at the bottom of the stack. My friend says that Radley and Hunter's stack is a good spark arrester, for wood principally, and the sparks of wood are more dangerous than those of coal [illegible]. He thinks that spark arresters are described in Clark's "[illegible] Mechanics" (or some such title, he thought). He says he [illegible] the [illegible] to New York are [illegible] at [illegible] [illegible]. [illegible] the Grant Locomotive Works which [illegible] [illegible]. There have been no material [illegible] [illegible] spark arresters in [illegible] years [illegible] [illegible] spark arrester that my friend [illegible] [illegible] [illegible] Tuesday [illegible]

[illegible] 1st Nov. 1878.

Dear Lizzy:

I am very glad to learn by your letter of [illegible] have the active cooperation of so able a man as Mr. [illegible]ton Lyman in the selection and purchase of [illegible] books.

I [illegible] will go to Northampton on Friday, and will take [illegible] paper or a map of it (there is one) any plan [illegible] house, and it will be much easier to settle it finally. [illegible] is general and only needs some minor changes, I [illegible] there, so as to get your views by word of mouth. I shall [illegible] be able to take with me the map of the Smith College [illegible] instead of merely it by express when I am there I [illegible] should be able to work upon [illegible] Lyman as soon [illegible] New York, instead of [illegible] will do after the Richardson way to be matured by Mr. Hird [illegible] had been planned.

Please [illegible] P. O. [illegible] by every mail to their arrival. I may visit [illegible] New York, as he cannot [illegible] will [illegible] books; but as I shall not [illegible] Northampton until Saturday morning. It is also possible that Mary and [illegible] visit Miss Lyman from [illegible] Friday, and if that [illegible] it probably will [illegible] and Thayer, instead [illegible] of going to Springfield [illegible] Sunday.

Your account of Aunt Hannah's [illegible] had been [illegible] but I hope she is [illegible] give my love to her.

Your affectionate [illegible]

135 South Fifth Street, Philadelphia;
4 Jan. 1872.

My dear Sanborn:

I am glad to find by your favor of [illegible] day before today that I am five dollars richer than I thought; but I think it comes about by some unfair hocus pocus on your part, as I don't see how you can have taken out the subscription last year, and I do not remember paying it before.

Your letter came just in time to [illegible] whether for I [illegible] tomorrow morning for Northampton to pass a few [illegible] there. I am glad to see that you intend to be there next week, and I shall be likely to [illegible] you there.

All that you write is very interesting. I wish Mr. Hubbard [illegible] Springfield could [illegible] the Springfield Republican [illegible] his views about the Postal [illegible] [illegible], for it seems [illegible] that the paper is rather hard on it, much as if it [illegible] [illegible] pecuniary interest in the present system of tele[graphs] [illegible] some of the present Companies. It seems [illegible] [illegible] it would be best to have the telegraphs managed by the gov[ernment] [illegible], and then by [illegible] we would have them to [illegible] [illegible] the [illegible] in the [illegible] [illegible] letter [illegible] is far cheaper than [illegible] of letters were only carried by private companies. I should [illegible] if the government [illegible] [illegible] while [illegible] [illegible], [illegible] [illegible] by gigantic and immensely powerful combination of capitalists in the interest [illegible] [illegible] instead of in the interest of the public. [illegible] [illegible] [illegible] the [illegible] [illegible] the government [illegible] [illegible] to [illegible] [illegible] with a [illegible] reformed civil service [illegible] [illegible]. [illegible] [illegible] the Republican [illegible] [illegible] [illegible] on Mr. [illegible] one [illegible] plan, [illegible] [illegible] [illegible]. This would prevent a president [illegible] [illegible] [illegible] [illegible] [illegible] while [illegible], but would not [illegible] his [illegible] [illegible] by good behavior [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible]. I must [illegible] think the Republican [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] Republican [illegible] [illegible] [illegible] I am glad to [illegible] [illegible] [illegible] Hubbard [illegible] [illegible].

35 Fourth Regt. Ohio Volunteers, [illegible]

Dear James:

Your letter of the thirteenth of [illegible] reached me
on my last night on my return from Nottingham
which was received today in being my first [illegible]
time, the machinist; but I hope to be [illegible] and to
the additional information you need. I will try [illegible]
having of these drawings made & then we may [illegible]
Klein's place of business is at some distance from
and his house is still further so that I can [illegible]
day in my seeing him; but I hope it will not [illegible]
current Prices.

I left all well at Cincinnati, and [illegible]
Mary (& Dec.) was good, and Aunt [illegible]
and Letter to Sunday when the mail [illegible]
[illegible]

Your affectionate [illegible]
Benj. Hunt Lyman

135 South Fifth Street, Philadelphia, 18 Jan. 1[8]

Prof. P. Frazer Jr.

Dear Frazer.

Mr. Lesley asked me this morning to say that he would tomorrow evening at a meeting of the Franklin Society ask leave (if you wish it) to have the meeting of the Am. Inst. of Mining Engineers held in the Society rooms.

I called at your office to say this but was disappointed to see you. Will you kindly let him or me know if you approve of this arrangement & he carried out? He did not.

Hoping to hear from you when you speak with him to-morrow.

Very truly yours.

Benj. Smith Lyman.

55 North Fifth Street, Philadelphia: 18 Jan. 187[illegible]

H. R. Lyman Esq.
Poughkeepsie, N. York.

My dear Uncle,

I have to thank you for forwarding me letter from India that I found here on my return to the [illegible] night; and I enclose herewith the heavy postage it [illegible] you. It went to your address owing to the ignorance [illegible] friend the pundit at Calcutta. I had taken the [illegible] of asking him to send the package of [illegible] your care in case they should be sent by steamer or sailing vessel to New York: for it might be necessary to wait [illegible], if they [illegible] to come by sailing vessel [illegible] Philadelphia, as the [illegible] vessels sailing from Calcutta for this port. Such [illegible] it into his head to give an alternative address to his letters, [illegible] will be some weeks before his notion can be corrected. But [illegible] it will give you no more trouble, as the [illegible] to send them here first. He has bought the [illegible] put them into the hands of my friend [illegible] probably within [illegible] days; so that [illegible] if they were sent by sailing vessel, about [illegible] sent by steamer, as I wished them to be [illegible]

[illegible]

[illegible] Fifth Street, Philadelphia, 18 Jan. 1872.

My dear Father,

I arrived here safely by ten o'clock last night. I made the connection easily by the regular transfer cars at New York, although the train left New York half an hour behind the expected time in consequence of the late snow storms. On my arrival here I found my rooms in good order, the entry warmed, a fire ready to kindle in my grate, and a long letter from my landlord on the table. This morning I found them all well. Mrs. Joseph Leeds had gone out to the country home last Saturday; for the doctors had told her family they could do nothing to cure her, and that they'd better get her out there she must go soon. So she went out on a fine mild day, as she was most anxious to do.

[illegible] very weak. She can walk about the room, but in doing so they fainted. She is cared for there in her own family. Since last Tuesday, table with the doctors took away her last [illegible] had a good deal; but they think it possible that [illegible] live some time. The Miss Leeds are quite [illegible] is still improving in New York. The house [illegible] thoroughly disinfected, the sick room has been [illegible] and some articles have been removed as [illegible] been to bring the school back to the city, but it is still a question with the [illegible] as yet. [illegible] will [illegible]

[illegible] is [illegible] a very [illegible]

[illegible] Peggy.

[illegible] for

135 South Fifth Street, Philadelphia, [illegible]

[illegible]

New York City.

[illegible] Dear Sir,

Here is the postage on the Indian letter, by.
I do not understand [illegible] in your [illegible].

Your affectionate Nephew,

Benj. Smith Barton.

135 South Fifth Street, Philadelphia, Aug. 1, '72

Dear James:

I saw my friend Kline yesterday. He is going to get the framed drawing of the Lyceum containing a great number of different kinds of stables and [illegible] which could not be removed from the office, as it is needed for reference there; but there is no objection to my copying it, and I hope to get it finished next week sometime, and I hope to get it finished next week sometime, and I hope to get it finished next week sometime. Meantime, he thinks [illegible] some draughtsman. — Meantime, he thinks [illegible] getting you: describe as cedar at bottom [illegible] with [illegible] are used for a roof; they commonly are [illegible] of slate. By an oversight not a cast iron gutter [illegible] are erected before 1876. Speak one to [illegible] and [illegible] Kline present state of perfection [illegible] 1864; no material improvements have been made in the [illegible] last year. I will get a tracing of Kelly [illegible] stable as quick as I can, so that you will understand [illegible]

Yours affectionately,

Frank Miles Day.

135 South Fifth Street, Philadelphia, 22 January 1842.

E. H. R. Lyman Esq.
31 Burling Slip, New York.

Dear Uncle:

I owe & thank you for your favor of yesterday
my account with you and a check for $269 24/100 in
balance of the same

The package of Shudders will, as I understand it,
be there & then in your care, or upon; and I shall
be much obliged if you would have it taken through to
Aunt Anne. I expect to receive the invoice of the package
& some, properly certified by the Consul at Calcutta, and
will send it right on to you. If my friends should send
by a sailing vessel, it is possible they may send on
to start for Philadelphia, and so send it be delivered

Your affectionate Nephew
Benj Smith Lyman.

South Fifth Street Philadelphia Dec 22/[illegible]

My dear Father

I am sorry to [illegible] your not [illegible] to [illegible] I am moving and [illegible] to [illegible] to not think however [illegible] will [illegible] for [illegible] to [illegible] the [illegible] would [illegible] likely to prejudice them against the [illegible]. It is still [illegible] when I next meet Mr. Lyman in [illegible] I will be [illegible] that he [illegible] in favor [illegible] you [illegible] one time or other; and in writing Mother [illegible] Mr. Hawley [illegible] and Mr. Allen, [illegible] I [illegible] made [illegible] you. In that case Mr. Lyman [illegible] the [illegible] the case of wet [illegible] and [illegible] the price to be paid for it. On many accounts I [illegible] be more convenient to take [illegible] even if not [illegible] convenient [illegible] Perhaps with a little [illegible] will [illegible] altered a little in one or two points [illegible] our minds; or perhaps it could be [illegible] (or if need, and given up) on your finding [illegible] If I could on [illegible] finishing [illegible] of five or eight thousand dollars [illegible] you [illegible] perhaps say the rest of [illegible] the child [illegible] about you take [illegible] I only [illegible] that you will not let the matter [illegible] you too much. — Mr. Evans I can be of any service [illegible] you must [illegible] and I will go to Northampton [illegible] possible.

[illegible] Brooklyn [illegible] all well. [illegible] absent [illegible] pleased with [illegible] Love [illegible]

[illegible]

[illegible] 26 Jan. [illegible]

E. H. R. Lyman, [illegible] Bowling [illegible], New York.

My dear Uncle,

Your favor of yesterday is at hand. The plan
I drew for Father's house is not [illegible], and it will be necessary
for you to apply to him for it. As we have decided on
it the plan is probably already in the hands of Mr. Pratt,
[illegible] and [illegible]. What I drew had reference
almost entirely to the arrangement of the rooms inside, and
[illegible] and [illegible]; with the only outside elevation [illegible]
was very rough and only to give some idea of the [illegible]
house. It is quite a difficult line to arrange many of the [illegible]
[illegible] details, and a professional architect must of course
be employed for that. We are none [illegible] satisfied [illegible] Mr.
Pratt is an architect, and I suggested employing some
[illegible] or Boston architect; and I do not think Father
would [illegible] begrudge the expense of doing so. But on some
accounts it is far more convenient and better to have the
work done by Mr. Pratt, who is on the ground and can [illegible]
[illegible] specifications are carried out. It was decided to build
[illegible] (for my part I much prefer brick) and to have
the [illegible] quite plain; and even so the cost will probably be
[illegible] of [illegible] 000, small as the house is. The intention is to [illegible]
[illegible] upon Mr. Pratt is to his [illegible] [illegible],
and [illegible] can hardly [illegible] [illegible]
[illegible] — I [illegible] hand of Father's [illegible]
a lot [illegible] his having [illegible] consideration [illegible]
[illegible] [illegible] [illegible]
[illegible] I am glad [illegible] over [illegible]
[illegible] satisfied with [illegible] [illegible]
[illegible]
[illegible]
[illegible]

[Proceedings of the American Philosophical Society — Philadelphia]

# Topography of the Punjab Oil Region.

I. Situation. — The Punjab oil region, [illegible] between [illegible] and 33°47′ north latitude and [illegible] and 71°15′ east longitude (from Greenwich) [illegible] a nearly square [illegible] a hundred miles long east and west [illegible] and south.

[illegible] corner of this square is [illegible] region, with [illegible] just inside the southern corner of Field [illegible] Khan, a town of about twelve thousand inhabitants, and just inside the northeast corner is the ruined and so-called ruin of a walled [illegible] called [illegible] Kot, [illegible] the northern [illegible] region and [illegible] twenty miles from its east [illegible] and to Kot village of Mahk[illegible] the [illegible] Capital Taxila, where [illegible] Alexander [illegible] 12 miles of Attock, where [illegible] it bridges, [illegible] [illegible] Hasan Abdal, [illegible] built by

at last the Christian era to mark the spot where Buddha in compassion gave his own flesh to satisfy the hunger of a starving tiger, stands a little outside the square, fifteen miles south east of Rawul Pindee.

The River Indus enters the square about the middle of the northern edge, and leaves it at the southwest corner. The Jhelum River (the "five streams" of the ancients), one of the five rivers that give its name to the Punjab, flows across the southeast corner past Paid Dadun Khan southwesterly towards the Indus. The centre of the region is drained by the Sohan, which rises near Rawul Pindee, and flows west southwest to the Indus.

The region lies then mostly between the Indus and Jhelum, in what is called the Sind Sagur Doab (Two Rivers); and it is mainly in the mountainous or hilly part (Kohistan) of the Doab.

II. General Lay of the Land. — The wide flat plain of the Indus skirts the southern edge of the region; but the rest is filled by a somewhat uneven table land, about 750 feet higher than the plain, with the Salt Range on the south in a very open arc pointing southwestward, and long arms

on the east, and with the Choor Hills and a spur of the Himalayas on the north, nearly parallel the Salt Range, but in a still more open curve, and with two or three much shorter parallel mountains between the two main ranges.

This spur of the Himalayas (4000 feet high above the sea) first enters the north-east corner of the region, dies away into the plains (about 1900 feet above the sea) in twenty miles, and is continued west, as the Choor Hills (of 3500 feet in height) as far as the Indus, followed by a little elevated region and by mountains west of the river. The Salt Range with two ridges 3000 or even above 5000 feet high and a valley between of half a dozen miles wide and some 2500 feet high, first north of Pind Dadun Khan west-southwestward to the southern edge of the region, and then turns north-east with a single ridge and afterwards with several ridges to the Indus, followed by high mountains west of the river.

The country between the Choor Hills and the Salt Range is a comparatively level one at fifteen hundred feet above the sea, about half a dozen miles north-west of Rawul Pindee to

mountain called Khairee Moorut rises above the plain and runs southwest for fifteen or twenty miles, reaching a height of over 3000 feet. There are also here and there a few other lower hills in the plains.

On the East the Salt Range falls abruptly to a very level plain that spreads far and wide at about 750 feet above the sea. In the very northwestern corner of the region the mountains west of the Indus come close down at Kafir Kot, an isolated peak with a double ridge, and rising to a height of more than 2000 feet above the sea.

The Indus flows with a swift current through a narrow rocky channel (1000 to 500 yards wide) with high banks in the country above the Salt Range but on reaching the plain below (at Kalabagh) spreads out into many wide channels with low banks and changing sandbars, and changes its course from time to time. The river falls between Attock and Kalabagh ~~about the Salt Range~~ (110 miles) about [illegible] a mile, for 350 miles below Kalabagh about [illegible] a mile. The Jhelum likewise spreads [illegible] many channels in the low-country.

As the climate affects the topography, it must be remarked that almost all the rain of the year takes place in this region within two or three months of the summer, which are preceded by two or three months of very hot, dry weather with the thermometer sometimes at 120° F. in the shade. During the summer rains and the melting of snow in the Himalayas and other very high mountains [illegible] great floods, and the Indus rises about [illegible] feet in the narrow channel above Kalabagh and in the wide channels below, about [illegible] nine feet, spreading out into broad lakes. The rivers of the Sohan and other smaller rivers is in the dry season a mere thread in the middle of a waste of sand sometimes a mile or more wide, which it wholly covers in the rainy season. Of course many of the smaller rivers are quite dry before the rains begin. The streams that flow down the Eastern face of the Salt Range also all dry up in the great sand plain of the low country and are lost in the sand before reaching the great river. Of the valley on the Western side of the Salt Range in which Pind Dadan Khan stands no outlet and is salt. On the north side of the [illegible] Nala Kallar Kahar, which may however [illegible]

outlet in high water, and is less salt than the

III. Special Features. — In looking into the geography of parts of the region the chief things to notice will be (1) their general height, (2) the character of the hills as affected by the steepness of dip of the rocks, (3) the modification of this character by time, and (4) the mode of cutting out the valleys.

1. The most striking feature in the topography of any region is the general difference of height of the different districts. We have, for example, in the region in question mountain lands such as the Salt Range, the Chor Hills, the Himalayan spurs and Khairee Moorut; table lands such as the central part of the region; and low land such as the plain south of the Salt Range.

The cause of such present differences of height are: the height to which the rocks have been raised to begin with; the length of time that they have been wearing away; and the general ease with which they wear away, which depends on their general hardness, fineness, solubility or permeability. The final result of the wearing away [illegible] over the land is [illegible]

[Continued on page 122]

[illegible]

135 South Eighth Street, Philadelphia; 29 [illegible]

My dear Father:

I am delighted to learn by your favor of [illegible] twenty fifth received on Saturday that you are at length free from the anxiety of making choice of a building [illegible] I do not know exactly where the lot is that you [illegible] bought, but it is enough that you and [illegible] are satisfied. I should think it must be the [illegible] just west of [illegible] house and opposite to [illegible]; I remember that this lot struck me [illegible] at [illegible] Northampton as not a bad place. It will be very [illegible] to have the new house as [illegible] and it will facilitate moving very much as well as [illegible] the progress of building. Perhaps the [illegible] can be finished in time for the [illegible] of the house [illegible] without a double [illegible]

[illegible] I should think it would be best to take the first of [illegible] variations of the plan, the one with the parlor [illegible] the front door [illegible] and have the house [illegible] by having the [illegible] side of the house parallel to the [illegible] This would give good [illegible] to the parlor windows, and keep the [illegible] and [illegible] door arrangement [illegible] from [illegible] and give them a [illegible] and [illegible] side of the house [illegible] was planned for [illegible] It would be in good [illegible] ground [illegible] lot on [illegible] Street. [illegible] for some weeks [illegible]. Whenever [illegible] broken for the cellar [illegible] you will [illegible] can be of any service in any way [illegible] I will visit you as soon as I [illegible] [illegible] immediately. [illegible] [illegible] in any [illegible] [illegible] if I might [illegible] [illegible] [illegible]

I told him of the house with Mr. Ellis and he wanted to see the plan of the house and consult with an architect if it could not be beautified somewhat and made as cheap as it could be without making any changes inside. I left the plan with him and that he must apply to you for it. I did not like to have him employ an architect, as I would be more familiar with the requirements of a Massachusetts house.

I went out to the Bliss's Saturday evening and had a very pleasant visit. Mr. Bliss had lately bought a dozen acres of land opposite his house with a view to building at about the same rate as Mr. Ellis's. He has set out some Norway spruce trees; and Mr. Bliss's place is pretty thickly built upon now, and only four or five miles from the center of business, and the land is good and level. — Miss Lyman came home from New York last Wednesday, and her school was to begin meeting at her house again today. She is to have, I said about fifteen pupils, daughters of Hilly persons but the school will no doubt be improved by the change. Mr. Everett Hosmer and Mary are to come home today. Mrs. Lisby and children are well. — Last Sunday evening I went to St. James Church for the first time in about three years, I think. The church is [illegible] and is quite filled on [illegible] Dr. Vinton preaches well.

[illegible]

Continued from page 119.



& bring everything to a dead level, and that the level of the sea. It might therefore be, that land as high as N. Kohistan once stood on the Salt Range, and has in the course of many ages been worn down to a low flat plain; as in the course of time the Kohistan must be, if it should never be pushed upward again. But the low land on the Salt Range is still high enough above the sea to have by unequal wearing away hundreds of rocks, if it had them, and would seem to be pretty uniformly soft soft, as if not long enough deposited to be very hard. It is probable therefore that since the deposit of its present upper surface it has never been raised as high as the Kohistan; though this surface may rest upon a floor of much older rocks below that may be the remnant of land as high as the Kohistan.

The whole of the Kohistan, however, seems to have been raised at about the same time and to about the same height, and this area of level country in a great measure in the relative case with which its rocks have been worn away, chiefly from their relative hardness

the rubble land has been in general wearing away for a much less time than the mountain land because it is made up of newer rocks that were formed in the bed of what was perhaps a great lake in the older rocks that make up the mountains. The newer rocks then, take the place of a great hollow in the rocks of the older formation, a hollow that would have been worn still deeper but for the protection that has been afforded by the covering.

This consideration enables some conclusions to be drawn as to the geology from the topography. The Salt Range is formed chiefly of a thick limerock (the nummulitic) and the softer rocks that it covers; and the Khoor Hills Range consists of a similar, probably the same limerock; and Khairee Murrut most likely of the same; in short all the high mountain land of the region seems to be caused by the presence of this thick limerock, and it is probable that wherever it once rose above the present level of the country it has left, like mountains to mark its place. Now to the [illegible]

Range is northerly, and it is pretty certain, therefore, that the southern dip of the Chow Hills must be southerly. For if this were northerly, the lime rock must have risen to the surface somewhere between the two ranges, and have left a ridge of rocks dipping southerly. Thairee Mouat is too short to represent so long a ridge as this must have been; and is probably a small saddle of the lime rock rising above the trap land. The rocks, then, both of the Chow Hills, as at Gunda, must rest upon the lime rock of those hills; however much steep and even somewhat reversed dips may show & make the contrary appear probable. The appearances did indeed mislead me at first. But if the Chow Hill lime rock lies really above the Gunda rocks, then both must be above the Old Range Nummulitic lime rock, and this is possibly so.

2. Looking closer home at the more knightly Thairee, its forms of the surface have three different characters according as the rocks are (a) basalt, or (b) slate, steatite, or (c) quartz.

a. The basaltic hills round the region is

mainly made up of rocks of quite late age, partly old alluvium, partly passing without break into Siwalik (Miocene) rocks below. These rocks lie nearly or quite level, and this fact here as in other regions gives rise to characteristic forms. The general slope of the country is comparatively level, and the ground is generally flat; but near the streams high vertical cliffs are common, connecting the flat table above with the flat rock bed. This might be called square edged valley. The rocks are generally pretty hard in places, some of them especially so; and the growth of a ravine gully into a good sized valley is quite rapid.

The surface of this part of the region is not, however, exclusively of this square edged character, for it is sometimes affected by other rocks which rise [illegible] in many places both in the valleys and on the higher lands. These rocks are of a more [illegible] age and are generally harder and firmer than those above, and often remain standing where they may once have been covered by them. In the northern part of the region the

Lava rocks generally have also a steep dip, and are folded into numerous sharp saddles and basins. This makes it not uncommon to see for hundred layers of rock to stand up like a huge edge; so sharp is just that on the Grand Cañon cliffs, 1500 feet or more in height above the plain, are so thin as to have holes and long horizontal slits quite through them at some distance from the top. Such things might be called sharp edged. But the great softness of the softer layers of the [illegible] may have been much worn away, so as to leave the harder ribs standing out, and the topography has a skeleton like, bony look.

often enables the geological structure. [illegible] seen very easily from the more topography, as the basins and saddles & the anticlinals [illegible]. The topography has this sharp, sharp edge, in places where the strata have cut through lava rocks, as far southward as the Colorado River. It is shown by the little [illegible] narrow, parallel valleys [illegible] deeply into the plateau on the north [illegible] Vitrain Range or Chuar Butte

lower rocks continues for some distance south
of the Forham; but the map shows no such flag
edged topography nor is no doubt to the thick
covering of the more rocks above as far as
the Forham.

In the Lobstone part of the region the
[illegible] rocks rise very high, generally
[illegible] saddle with a small basin between
[illegible] commonly having gentle dips eastward
[illegible] towards the north. Sometimes the dips
[illegible] as high as 15° but something like
[illegible] edged topography already described
[illegible] at Skinnow, Hungerock and
[illegible] the dips is often 45° but the
[illegible] topography is not mountainous
[illegible] as around Forham near the
[illegible] part of the Lobstone Range. There are
in this case often short vertical cliffs, but the land
[illegible] above them is steeper than where
[illegible] the level, though less steep than
[illegible] dips very steeply. At Hungerock there
[illegible] uniform dip of about 25°, and a
[illegible] descending steepness of the hill on
[illegible] which [illegible] layer of clay [illegible]

are so protected by harder layers of sandrock or lime rock as to form vertical walls on the other side of the hills. Had the dip been much steeper, the clay and shales would doubtless have been wholly washed away to a level leaving the harder sand rock and lime rock layers standing, if there were thick enough to hold themselves up.

3. The progress of the wearing away will thus give rise to varieties of topographical features. The tendency is to bring the whole country finally to the level of the sea; but progress towards this end is, of course, more rapid in the water courses than elsewhere. Elevation above neighboring drainage levels by lessening the force of the streams makes the progress slower.

We have therefore a hyrne edged district of flat land with crooked, meandering, often obstructed streams, as shown in the Lower Country south of the Salt Range and the bayous in some places north of Arkansas and Red River, as well as along some large streams. Next, the Country becomes uneven; and if the

surface where the dip is uniformly east, the land becomes rolling, as perhaps in some large parts north of the Salt Range; if the surface is mountainous, it will be cut and shelter the rocks below as by vine ridges & long cliffs and gorges, as near Cabinoor, Hungoorah and Sooma and elsewhere along the northern side of the Salt Range, and at Nursingjuhar and Nagpoor on the southern side. In the course of time, however, after the streams have cut down to their base level, these cliffs must recede farther and farther from the streams, though at length with great slowness, and finally the whole country becomes again a dead level, if it remains undisturbed long enough.

But where the rivers as in the higher country flow among rocks that have a decided dip, their direction is of course much influenced by the strike of the rocks. It is very plain, for example, that the Sohan follows in general the strike of the lower (Cretaceous) rocks; and the same may be said of many of the smaller streams, especially of the very striking series of small E. & W. streams of the

the northern parts of the Sorkan.

In a district where rocks differ greatly in hardness, as they are wider than in one of sharp dips are likely to be longer also and less decidedly broken up by subordinate folds, and the valleys are less broken up and crushed together. The valleys are therefore more likely to be long ... the ridges unbroken; and in the course of time after the first irregularity caused by the comparatively quick wearing down of the main channels to their lowest level, there becomes great uniformity in the shape of the valleys, by ... and parallel, and in the crests of the mountains long and level. The valleys form ravines rather than gorges; for they are not extremely steep on both sides for any great distance. The mountains about Rugged show these features well. Should mountains in wearing away to the final dead level will become more and more gently rounded ridges, the country will become more and more open and at length quite flat.

Where the rocks, however, dip very steeply and have been much crushed together and

overturned. The small basins are more likely to the drainage of the larger ones, there are more of cross breaks and numerous cleavage planes, so that the valleys are shorter and more irregular, and the mountains rise in peaks rather than in long crests. So it is in the spurs of the Himalayas, in the Khasi Hills and in the western end of the Salt Range about Jhelum on the Indus. In wearing away, such features become more and more rounded until they sink to the level of the valleys, and the country becomes flat.

b. The topography is somewhat affected by the nature of the wearing agent, whether this be the wind, (a) the rain, (b) rivers, (c) the sea, (d) frost, or (e) ice. But no part of the region would seem to be affected materially by the wearing or carrying power of the wind, unless it be some very light sandy portions of the low-country part of the Salt Range.

c. The rain of course falls equally on the hillslopes and on the plains, and however more or less of the rocks or earth it falls on according to their hardness, and carries to lower

particles with it the streams and brooks do it more or less easily according to steepness of declivity. Where a harder bed covers a softer one, this will be, as already remarked at Haggard and elsewhere, cut down upright wall around the edges of the shelter. The action of the main is, 1st, that of washing. Its effect can be seen always through the year.

2. The action of rivers on the shore land is not merely that of washing, i.e. removing as rain, but of undermining; for a stream washes away the bottom of a cliff, and then the upper part falls by its own weight. It may then wash away the rubbish formed by the fall and continue to attack the cliff. That undermining may be seen in progress at a quarter of a mile below the Burra Burra at Glynn where the brook has formed at the bottom of the cliff a low cavern whose deep angle shows the rocks above fall down. A stream that falls over a bed of rock will often, as it washes, undermine it, especially if there be a soft layer of rock at the bottom of the fall. The undermined edge of the fall at last comes down, the rubble

& washed away, the remaining gorge again as a gorge is gradually formed between hill. Typical pair of cliffs facing each other, a result of river action; and this is generally combined with a series of rain. Such a gorge is to be seen forming in a small scale at the Chhota Kutta oil spring and a few hundred yards above that, although the greater part of the work was done by ago. Gorges formed in the same way are to be seen at Nursingpukar and elsewhere along the southern face of the Salt Range; they have appar- ently been made by much larger streams than now flow through them.

The Salt Range has in the western corner of the area near its point, at the village of Nammal, a right angled bay in its southwestern face; and it looks as if this had once been the outlet of all the waters north of the Range, and as if there had been an enormous ravine there that had begun to cut a gorge back for itself, before the present gorge of the Indus at Kalabagh was cut. Perhaps the great amount of salt in the hills in this mountain near Kalabagh by its readily dis- solving with [illegible] letting the rock above [illegible]

undermined scattered the angular gravel
gorge and gave it the shape of the present bottom.

2. The waving action of the sea is almost
wholly by undermining the headlands of a coast
The waves dash against the shore and wear it into
a cliff, undermine the cliff, the tidal currents
carry off the rubbish that falls, the undermining goes
on again, and the sea at last eats the land
down into new level. But in bays the force
of the waves is lessened, the water is quieter,
the earthy matter in the water drops more readily
to the bottom, the rivers bring in most matter for
the valley at the head of the bay, and this keeps
filled up. A single long cliff or line of cliffs
looking down on a wide plain is then, the record
of sea cutting. The mountain escarpment of the
Salt Range is abrupt and striking, but gives
the impression of a coast line formed by the
sea; and really seems to have been so formed;
when the low land of the trough was under water,
either salt or fresh, though perhaps a little raised
by the rains since then.

4. The trough acts by forcing the water in
the small area of the mouth, and by

expansion loosening particles of matter from it or breaking them apart, and letting them fall down, at least as the ice that may fill and then melts away. Such loosened masses can only fall down a pretty short space. It may be the action of the frost also that sometimes, though rarely, in this region, but it cannot be so in the hot climates.

2. For the same reason there is no significance of the action of ice or glaciers, with their grooving and polishing of the rocks by the pebbles and mud they push along, and with the heaps of rubbish that they leave when melted.

It is plain from what has been said that, as the topography is not far from being accidental and is so thoroughly modified by the nature and position of the rocks according to which it is carved, its careful study is of the greatest importance in reading aloud the geology there; even if not quite so indispensable for the general geology of a thing as the geological details of a stone

Dist. A rough sketch or tracing and a few notes of the geological facts along with a sketch of the topography, but is very indefinite and imperfect and insufficient for both, as executed with a contour line sketch and with very few notes as seem to laborious and time taking, but is yet all as necessary as the work to be done.

11 Rock Specimens. The geology of the [illegible] or of large parts of it has been studied by Dr. H. Thomas (Journal Geol. Society of Bengal 1843), Dr. A. Fleming (Asiatic Res. [illegible] 1853), Mr. W. [illegible] (Jour. A. S. B. 1854), Mr. N. H. Gordon (J. A. S. B. 1855-57) and a few others at various times, a very [illegible] Report on the Geology of Cachar, 1870. Mr. N. S. Wynne, Officiating Geologist Survey of India, has spent the last winter in exploring the Khasi Range and studying its geology, but beyond a paper or two as yet published in the Records of the Geological Survey of India his observations have not yet been made public. To have the benefit of learning what [illegible] it would be well that specimens

short distance of the gravity, the [illegible]
debris from the alluvium, which has [illegible]
described.

The old alluvial rocks N. of Kaw have
weathered so evenly much of the table land
as of an even thickness, some ten feet
yards at any rate, and perhaps more,
and in some places without interruption
into the recent alluvium or soil. It is
also possible that in places they may have
had without interruption into the rocks that
have been called basalt.

We have seen this gravel & older gravel
rocks of the region:

Here, with disturbed rocks:
Alluvium, or soil. Thickness unknown
Old Alluvium? Ridge and under 150 ft
Older rocks, with more or less dip of strata:
Miocene? Gravel, grey sandstone, shale
and pebbly rock in bed and [illegible]
Clays (Cretaceous?) [illegible] have called
1000 ft. perhaps not more than 2000 ft.
Older rocks, by Alluvium and
[illegible]

with fine grey limestone
and shale in thin layers
with coal ——— 250

Limestone, blue, shaly in part
and fossiliferous, with
shale ——— 110

Measures. Green and red shale,
clay, lime rock, and sandstone
and [illegible] with limestone
shale, red ——— 700

Carboniferous. Lime rock, grey shale
rock and shale, calcareous
sand rock and shale, shale in
Devonian. Red micaceous and
clays with [illegible] granular
sand rock and shale with
grey to bluish and rock;
red sand and shale rock;
and red marl with rock
salt and plaster, [illegible]

The three lower formations are in this region
found only in the [illegible] and yield nothing
[illegible] Kaskia Rock, and the uppermost portion
is quarried from [illegible] Red Hill [illegible]
[illegible] are very much [illegible] the age of

present beds often leave [illegible] from quite a small [illegible] of their former [illegible] study of these formations has [illegible] added much [illegible] now learned [illegible] fifty years ago, and [illegible] change some of the estimates of [illegible] of age. There would seem [illegible] of variation in the beds from place to place within short distances.

V. Mineral Minerals.— The following useful minerals are found in the region in greater or less quantity: (1) Oil; (2) Salt, (3) Plaster, (4) Sulphur, (5) Alum, (6) Nitre, (7) Coal, (8) Gold; and in small quantity are (9) Coke, (10) Iron, and (11) Lead.

1. Oil. The oil has been bored upon at Tarentum, and at first fifty gallons per day were pumped from the well; but the yield, of course, grew [illegible] the [illegible] amount had reached ten thousand gallons (about four months) the daily yield was less than ten gallons. In the region oil floats also at five other places from natural springs, from pits at three quarries, clays, and from

are traces of it at two other places, making eight in all. Asphalt, or dried oil, is found in small quantities at four of these places and at four other places, at two in notable quantities. At most of the asphalt places there are traces of rock tar or asphalt melted in the heat of the sun; and at one of them (Skuggad) as much as 100 gallons. Besides these dozen places where oil or asphalt is found there are half a dozen places where there are small traces of one or the other, enough to attract notice in the minute examination of the country by its inhabitants. About half of all the places are in the northeastern corner of the region; about half toward the southeastern corner; and one or two in the northwestern corner towards the middle.

The Skuggad oil (now dried to asphalt) seems to have come from rocks of carboniferous age, to judge by their fossils, though other things would rather show that they were of later age. If they are carboniferous, then the nummulitic rocks are wanting above them, and have been removed completely away from a thick ex-

N. 1000 feet only thirty miles distant. This oil is also the only case of oil outside of the Oligocene rocks anywhere in the whole region.

All the other oil springs or shows of oil in the northern part of the region are on the north-east side of the Salt Range and in the nummulitic lime rock or close above it. ~~The~~ The northern ones are either in the nummulitic lime rock of the Khoor Hills, the Jurassic probably as far up the Salt Range; or in the Gunda rocks (chiefly sand rocks) that lie next above them, also accompanied by nummulites.

In every case the oil seems to come from a point of very small horizontal extent, sometimes only a few feet, seldom as much as a few hundred yards; only in one case, that of Chhoti Kuatta and Burra Kuatta oil springs near Jaba does the deposit seem to extend N. and S. as far as half a mile. Here the oil comes from a thickness of about a hundred feet, and the natural springs yield at one place as much as three quarts a day. At all the other places the oil comes from a much smaller thickness of rock, from forty feet at Chaga to

and twenty at Kunda and Pennsha Lawanda.
Directly to any one of the oil springs come from the same bed of rock.

The oil of the springs is dark green in colour and so heavy as to mark 25° of Baumé's scale or even less. The Kunda oil has been burned a little by the natives with a single wick resting on the edge of an open dish; but the Pennsha oil is more inflammable, and needs a special contrivance for the wick, though the main principle of the Kunda lamp may stay answered. The oil gas which issues from the ground at Pennsha, and has been employed as a cure for the sore backs of Camels. The asphalt was also highly prized forty years ago by the natives as medicine, especially for broken bones. It was carried far and wide; and was called "negro's fat" because it was generally believed to have differed from the fat of a negro that had been hung up by the heels before a slow fire.

It is scarcely needless to say that there is nothing whatever in the mode of occurrence of the Pennsha oil to shield the chimerical belief

that rock oil ever passes by distillation, emanation or otherwise from one set of rocks to another, that it originates in any different rocks from those in which it is found, and nothing to show that it has been formed by any other method than the very natural and sufficient one of the destructive decomposition of organic matter diffused as here ~~[illegible]~~ the other materials of the rocks. Neither is there anything to show that rock oil has been driven by the upward pressure of water from the lower parts of a bed of rock through layers to a higher part of the same bed; or to ~~[illegible]~~ as the rocks near most of the oil springs dipping steeply, if such an action were possible, all the oil would long ago have been altogether forced out of the rocks at the outcrop. Indeed such an idea is quite inconsistent with the fact that even a slight amount of oiliness in the pores of a body is a complete bar to the entrance of water; much less could water (unless deep) drive the oil from one mass of rock and make it flow into another mass filled with water. If oil wells are more numerous in those

begins along the top of the second anticline, the reason is clear, but the oil bearing bed has to be dug for boring conveniently elsewhere.

Wild hopes have sometimes been entertained that a large amount of oil might by boring near the springs be struck in Lower Miocene below the oil bearing bed; but it is safe to say that they are not justified by anything whatever either in the Punjab or in any other part of the world, either in the practical experience of boring or in the general laws of physics.

2. Salt. In the lower part of Nurra rocks there are large deposits of salt from white to bright red in color, in layers of [illegible] feet separated by thin (half inch) layers of red marl, amounting in all to a hundred feet or more. It is mined especially at Kheora in one place in a chamber [illegible] 40 yards long, 30 feet wide and high, and at other places near Pind Dadan Khan, and on both sides of the Indus near Kalabagh. There are [illegible] beds of salt, partly of the same age, and [illegible] west, five miles north of Kalabagh.

3. Plants. – Epsom is found in beds as much as thirty feet thick or more and with seams of the bromian salt mixed in the salt range, especially near the salt mines; and is ordinarily light grey and mottled in color sometimes pure white, sometimes crystalline. It is also found in mass of perhaps 20 000 tons at Salt Creek oil Spring and in one of perhaps 100 000 tons near the Peninsula oil Spring, and in some quantity at some other places but other pure epsomite banks on the shores of each of these are usually stained from being worked by salt water springs and perhaps may be the similar deposits in the region.

4. Sulphur. – In each of these cases the Epsom is associated with sulphur, which is lying in some quantities nearly gone or more ago, from small yellow pits, and after the separation from earthy impurities by sublimation it is said to have been mostly in small yellow disks in the earth but was seen in the form of [illegible] crystals near the

[illegible]

[illegible] [illegible] in the [illegible] [illegible] [illegible] along the [illegible] with the rogan.

5. Alum. — Alum [illegible] which are also bitu-minous and pyritic, are found in the [illegible] rocks of the mountains near Ralsbrugh, and are largely [illegible]. They are burned six or eight months in [illegible] thirty or forty feet high, and washed in vats of [illegible] clay; the liquor is boiled in iron pans and mixed with [illegible] [illegible] mixture of sulphate of iron and salt, an efflorescence on the soil in many parts of the low lands, and left [illegible] and crystallize in vats; the crystals are [illegible] with cold water, and melted in an iron pan in their own water of crystallization; the liquid is poured into [illegible] [illegible] where it crystallizes and finally the uncrystallized portion is poured off, the jar is broken open, and the alum is ready for sale. About twenty years ago its manufacture amounted to more than [illegible] 400 tons a year, and it had been carried on by one family for eight generations.

6. Saltpetre. — Saltpetre is said to be leached from the soil at several places a [illegible] or twenty miles west of [illegible] on the [illegible] [illegible] [illegible] [illegible].

7. Coal. — Thin beds of [illegible] coal with the [illegible] [illegible] [illegible] [illegible] bituminous coal are found in the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] near

Paid Drums N.L. — and in the above state of the
Weather they are very thin and irregular, the
Natives sometimes read a Medium of four
Rounds to the east; and are often known more
than four Rounds with good ear. We are pointing
[illegible] with the consent of Said Sultan Khan. He
sets however would not seem to keep of our Visi-
tors to any distance, and are in the habit of
[illegible] value.

Gold — Gold has been washed from the
Auriferous sands along the Indus, near the
[illegible] Mountains, and is found in almost every
part of the Bed of the River Indus
as far down as the mouth of the Kabul River
as well as the much larger Hill streams which
[illegible] about 30 Miles below Attock and
Kamalgah, and each one named about 10 miles
apart. They used a pick Shovel, sieve, or [illegible]
a [illegible] (for panning out) and gave
[illegible] to the Sultan in addition to the amount which
he [illegible] and further work. The washing are discharged
every rain, but being dried, and [illegible] Sand
being [illegible] the work.

Silver — Small ornaments, bells of [illegible]
[illegible], chiefly [illegible] of [illegible] (copper plates) [illegible]

Mercury, you extract of pebbles from the Copper veins down, are found in the Sheppody & Shubenacadie Lakes, Lake Range; but in veins of the rocks have not been discovered. There are thought to contain from 1 to 2 per cent of copper, but to be insignificant in amount.

B. Iron. — The ores of iron from the channel as near it in amount at any one place as the copper ores, & are scattered. Small balls or crystals of magnetic iron ore from the sides of a valley down are found in a pebble rock at Rugged Range, a mile & a half; and similar bits of iron are found on the surface of the ground at Canada, and doubtless in many other places. But no place has been found by the magnet to work.

11. Lead. — Galena is found in small crystals in a limestone near the Kennetcook mines, but in such small quantity as the workers.

12. Map. — The topography of the map that goes with this paper is based on that of Captain (now Colonel) D. G. Robinson's admirable map of the Kennetcook & the said Lagoon Stream, a map on a scale of 2 inches to the mile, with the kind assistance of the Engineer from whom I received it by leave of Hon.

[illegible] will be noticed in the spelling of the words in the paper and on the [illegible] may be found in the spelling of the many [illegible] of the Anglo-Saxon characters for spelling words [illegible] Roman characters. A system may be devised for the [illegible] by which these marks can be made in the manuscript [illegible] In the printing of the manuscript in the paper is according to the [illegible] using Italian names, and is more convenient for the absence of diacritical marks, no exact consistent with the rest of the text, and at the same time more generally the common English pronunciation of native words.

The work is printed from a plate electrotyped from a photograph of the manuscript process of the Julian Press. Typesetting, Hand Lithographing, Engraving and Printing by

Benj. Smith Lyman.

Philadelphia, 31 Jan. 82

[illegible] Mineral Region.

II. [illegible]

III. [illegible]

1. [illegible]

2. [illegible]

a. Square edged.

b. Rigid edged.

c. Blunt edged.

3. [illegible]

4. Mode of cutting.

a. Rain.

b. Rivers.

c. Sea.

d. Frost.

e. Ice.

IV. Rock Groups.

V. Useful Minerals.

| | | |
|---|---|---|
| 1. Oil. | 5. Alum. | 9. [illegible] |
| 2. Salt. | 6. Salpetre. | 10. [illegible] |
| 3. Plaster. | 7. Coal. | 11. [illegible] |
| 4. Salphur. | 8. Gold. | |

Marl.

105 South [illegible] Street, Philadelphia [illegible]
[illegible] 1842

My dear [illegible]

I have to thank you for the [illegible] the
[illegible] of some copies of the Daily Republican. I was
away from [illegible] the next day but one after parting
with you, I [illegible] the [illegible] the House of Rep
[illegible] a [illegible] members the third [illegible]
[illegible] finally [illegible] the twenty
[illegible] though the work [illegible] been
[illegible] It [illegible] that the number of bells hung
[illegible] the new [illegible] is 936 including 34 that were in the
old [illegible] 7 [illegible], and the
[illegible] 16000 [illegible] gold [illegible] 36000 for the
[illegible] Indian of Nov. 9 says that "A Bab,
[illegible] (we believe) the
[illegible] believe that he has been
[illegible] things somewhere [illegible]
[illegible] the [illegible] not your plan. The Indian
[illegible] Mr. Dall's [illegible]
[illegible] be the things at the
[illegible] does not appear however,
[illegible] he is evidently [illegible]
[illegible] himself. He has announced a
[illegible] the [illegible] creation" on the question "Was the
[illegible] a Christian?" — One thing
I [illegible] tell you about Dwijendra Nath Tagore the author
[illegible] by the way there is a
notice [illegible] column or more in length in the Friend of India
[illegible] complimentary, but rather finding fault with
him [illegible] making reason revelation" and speaking of the
"Deity [illegible] many, but the notice is communicated
by "[illegible]" [illegible], and the Editor says he does not
agree with [illegible] about the testimony [illegible] religious [illegible]
Dwijendra said [illegible] one point of agreement between [illegible]

Richard Chandler he was [illegible] indulged
man worship of spirit, and thought that some media
was necessary between man and God, as we usually
of Christ, a very good man Richard Cary
Jesus but also to worshipped by a set of Unitarians
remember that Mr. Rufus Ellis & I debated with
one Saturday in our College days, spent a good part
the afternoon in an argument to answer to me upon
Theodore Parker and his views, and said [illegible]
upon the need of some mediation between man and
God as that before Jesus & they had proved in
that character. — We did not settle all [illegible]
book was the imported of calling [illegible]
said that a bookseller might make the [illegible]
amount of matter right; but if you think Belgium
and Ghent of a suitable bookseller, well and good.
wish I should be happy to send for any number
that might be needed as I could have them sent here
either by mail, or by a sailing vessel, or perhaps
the [illegible]
Chatfield, the librarian, could send a book package a la dis
[illegible] to do [illegible] by way of England, along with
his journal [illegible] matter, [illegible] but he would perhaps
object to [illegible] to [illegible] a book, for he is an old
[illegible] Kindness [illegible]. — On my return home I found a letter
from my [illegible] dated 24th Feb., saying the Chandlers had
been brought [illegible] and that my friend Atkinson's [illegible]
would be shipped in [illegible] or three days thereafter. Mr. Cassin
[illegible] stay [illegible] with his daughter and handed over
to her a small [illegible] in Rat's bill which is in [illegible]
for his trouble, whereat she upbraided him for keeping it
and told him to just [illegible] money with some he had [illegible]
Atkinson for charges and a cloth [illegible] over, and buy
me another Chandler so he returned receipted bill &
The consequence will be a [illegible] delay and I shall have
to send another remittance to make up for deficiency
Atkinson wrote me the 28th of Nov. that the package was [illegible]
for some months from Rotterdam, and would be sent from [illegible]
the day about [illegible] by Cabin by steam; the mail takes [illegible]
[illegible] about [illegible] [illegible] [illegible]

13 Bank St. Philadelphia, Feb. 9th

My dear Mr.

Your favor of yesterday is at hand, and I think I can go to Northampton next Monday stopping over in York for a couple of hours to see the Court House. If that would not be long enough for you I can stay over night and go on to Northampton Tuesday. I have some fear however that my visit may be less serviceable now than it would be after Mr. Pratt or Mr. Hendel or the architect have done what they can for it may be worth while to have as many suggestions as possible, and if necessary to suggest alterations which would perhaps not be so serious before the contract is given out. My impression is that it would require Mr. Pratt some little time to make complete specifications and that he would not perhaps have leisure to do it before my visit on Tuesday. If you write me you could name a time when I come a little later, then will be time yet for a letter to reach me before I leave Monday.

I do not understand how the Northampton mechanics can have any difficulty in understanding Mr. Pratt's plans and specifications any more than Mr. Pratt; but the real difficulty is perhaps in this not willing to do so, or perhaps it is important to have the architect near enough to see for himself that the specifications are carried out. The mechanics who build the new Court House will doubtless have to keep remember the task of comprehending the contract and plans. As for as Lehigh is concerned I shall [illegible] in Mr. Pratt's hands them to obtain any assistance [illegible] in the County.

Yours truly

Very affectionately Yours,

Geo. Whitfield

[illegible] South Eighth [illegible], Philadelphia, [illegible] 1872.

To H. R. [illegible] Esq,
[illegible] Bowling [illegible], New York.

My dear Uncle

[illegible] Letter from [illegible] asks me to have a talk with you about [illegible] on my way to Southampton. If it [illegible] should be happy to do so next Monday [illegible] or between that and the [illegible], [illegible] to [illegible] the same evening [illegible] [illegible] would [illegible] [illegible] have, I would [illegible] [illegible], call [illegible] [illegible] plan is to leave this city [illegible] Monday [illegible] [illegible] that my going [illegible] of [illegible], I will [illegible].

Yours affectionately [illegible]

[illegible]

[illegible] North 9th Street, Philadelphia, 3 Feb. 1872.

[illegible] H. R. Lyman Esq. 31 [illegible]

My dear Uncle:

Your favor of yesterday is at hand. In order to see you [illegible] has had time to [illegible] work, I will not go to New York until Thursday morning [illegible] to [illegible]. If convenient, I should be glad to have [illegible] talk with you and go on the same day to Northampton, hoping to have the pleasure of seeing [illegible] and Annie another time; but I can stay over night, [illegible] more convenient to you.

It may save you [illegible] some trouble [illegible] to state what father may have forgotten to mention, that [illegible] even the [illegible] rooms should not be more than [illegible] and this without any expense [illegible] cost. Our first intention was to have the [illegible] rooms of [illegible] front building ten feet high, the upper one [illegible] nine; the [illegible] back building about nine feet high below and eight [illegible] and a half on the second floor; and the [illegible] a little lower, say seven and a half. On finding, however, the building was to cost [illegible] thought they would [illegible] by making the [illegible] front building nine feet [illegible] and [illegible] and a half above; [illegible] in [illegible] would not [illegible] a chandelier for gas [illegible] [illegible] stories, about eight [illegible] and [illegible] a little less.

Your aff. nephew &c
Benj. Smith Lyman.

[illegible] Philadelphia, Oct 26, 1872.

[illegible]

Your favor of yesterday is at hand. Lieut Ingersoll and Steward Edwald, in which he says that his drawings will not be ready before Tuesday or Wednesday. So I will not go to Boston before Thursday, and hope to get through by Saturday. It is a long job, especially as it would seem best to make me at all with your arrangements to have such a delay. I do not yet know from your letter how long it will take me [illegible] of it be a long job, as I hope [illegible] responsible for me to go on before I have [illegible] and Digby as well as from [illegible] to finish. But after he has carried out your [illegible] wants here, I may possibly have some [illegible] to suggest before finally giving out the contract [illegible] his details, though we could not prescribe [illegible] we could prescribe them all, we should [illegible] at all. If he can find a way of carrying [illegible] we can judge if it is a satisfactory one, and [illegible] I suppose the Chamber [illegible] [illegible] Ogden, if it is [illegible] could stand by and cut [illegible] [illegible] with trouble [illegible] employing [illegible] we are both [illegible] [illegible] It will be a trifling [illegible]

Scotch Series 2nd Topographic.

# Northern India Photographs.

3. The Taj from the River Jumna, northeast. Agra.

The Taj (the most celebrated gem of India, some say of the world) is so named (for Taj) because it is the tomb of the favorite Mumtaz-i-Mahal (Pearl of the Harem) Queen of Shah Jehan (the original builder, for a year only, of Shah Jehan (the regal 1627–1658) and niece of Noor Mahal (Light of the Harem) (see page 11, and Morris La Ll. Rookh) afterwards a Great Mogul Empire Lights of the World. See pp. 6 and 8.

4. The Taj from the Corner of the Platform. Agra.

The Taj was begun in 1630, and 20000 men worked on it constantly for twenty two years; the cost was $5,500,000. Although the Taj (Crown by the Turks) is built with black marble, outside and inside with white [illegible] See 3, p. 6

GARDEN
PLATFORM
PLATFORM

5. The Taj from the Garden. Agra.

The inside of the Taj is inlaid with precious stones work for 3,500 c. The sarcophagus of the Taj Lady is in the centre of the Taj, under the dome; it & of black Jaba alm & wide. Both are covered with mosaic, surrounded by a screen of white marble open work also covered with mosaic. See 3, 4 and 6.

Gate of the Taj. Agra.

The Gate of the Taj is built of red sandstone with white marble picks. It is much carved and inscribed with texts from the Koran. See 3, 4 and 5.

Palace of Akbar, with the Taj in the distance. Agra.

The greatest of the Moghul emperors, grandfather of Shah Jahan, reigned from 1538 to 1605; and in the city of Agra, overlooking the Jumna River, he built this palace and buildings [illegible]

5. Court yard of the Motee Mugjid. Agra.

The Motee Mugjid (Pearl Mosque) is adjoining to the fort, is of white marble, and was built by Shah Jehan in 1656. It is reckoned the pearl of all mosques, though small, yet for its style and proportions &c. &c.

6. Inside of the Motee Mugjid. Agra.

There are three niches of Saracenic arches parallel to the front of the mosque.

7. Tomb of Akbar from the South-East corner of the Square, grandson of Baber. Genghis Khan was the second from Timur Lane, died in 1605. His successor was the son Jehangeer, father of Shah Jehan. The tomb is 100 feet high, and more than 300 feet square, or a little from 1000 feet square. There is a plain terrace of the tomb a vaulted hall at the bottom for dwelling and on the flat stone roof.

8. Tomb of Itmaud-ud-Dowlah, or Kunjee Khan of Persia. Came from Persia to India to the Court of Akbar. So poor was he that he carried on his head and all the way [illegible]

Mahul. She rose high in Akbar's service and the
daughter sometimes visited the ladies of the palace.
Akbar's son, afterwards the Emperor Jehangeer, fell in
love with her and wished to marry her, but she was mar-
ried by Sheer Afghan, a Tartar noble, to whom
she had long been engaged. Whereupon, as Jehan-
geer became emperor he had his rival murdered and
married Nour Mahul, who was called Nourjee-
han. She had great spirit, and ruled the em-
absolutely, and though the empire for the rest
of his life, ten years. She even led the army in battle,
and had her name stamped on the imperial coin. Her
father was made high treasurer (Shamsoodowlah) and
afterwards prime minister. She had no children by
Jehangeer; but married her daughter first marriage
to his youngest son, and tried to place the succession
the throne for her son in law; and had Jehangeer's
eldest son blinded, and murdered the mother. But an-
other son, Shah Jehan, took the throne on Jehangeer's
and she retired from the world on an annuity
million and a quarter dollars. — She built
marble, about fifty feet square with
the corner about forty feet high, on

12. The Qutab Minar and Ruins from the East Delhi.

13. The Great Arch and Iron Pillar. Qutab, Delhi.

Ruins of the Jain Temples Arches near the Qutab Delhi

Colonnade of Hindoo Pillars, near the Qutab Delhi

A general View of Benares from Opposite Bank of the Ganges

Burning Ghat. Benares.

The Main Burning Ghat and Kotwal Temple Benares

The Manikarnika Ghat and Temples. Benares

Various Pucca and Kutcha Houses near the Burning Ghat

Viswanath Nath or Golden Temple Benares.

[illegible] Hindu Observatory [illegible] in Burning

[illegible] Ghats. Benares

24. Sunset Temple at Ramnagger, Bungalow in ruins on the river portion. Benares.

25. The Ruined Bungalow. Lucknow.

26. Entrance of the Hermitage Bazar. Lucknow.

27. Tomb of Shujah-ud-Dowlah, Nabob of Oude. Lucknow.

28. Ruins of the Residency at Lucknow.

29. Bridge over the Canal at Allahabad.

30 Bridge over the Canal showing images.

31 General view from above Grave Cottage Murree.

32 Bazar and Church from the Barracks. Murree

53. Lucerne Photographs.

34. Village of Dreyspan.

35. The first bridge, and city of Lucerne.

36 From the River from the First Bridge. Lucerne

37. The Fourth Bridge. Lucerne

38. Bridge of Reuss Lucerne.

39. The Palace and City. Lucerne.

40. Up the River from the Fourth Bridge. Lucerne

41. Jubilee Fountain. Lucerne.

42 View on the Rhine Canal.

43. Lucerne down the River from the Old Church.

44. The Palace, Geneva. Lake and

45. Natural Fountain, Tuscaloosa, Ala.

46. Natural Fountain, Tuscaloosa, Ala.

47. Ancient Temple at Kom-o-mbo, near Thebes
the Corridor and Gate of Building.

48. Ancient Egyptian Temple at Kalabsha, Nubia

49. Nubian Tomb at Kalabsha, Nubia

50. Baranoola from above the Bridge

51. Baranoola, Lower down the River

52. The Village of Baranoola, from the Cliff above

53. Rock Valley above Baranoola.

54. Ivory Palm of the Blue Nile

[illegible] Philadelphia, [illegible] 1872.

[illegible]

[illegible] Broad [illegible] Philadelphia.

Dear Sir:

My journey has been delayed, so that I shall not be in Washington until Friday; and I should be greatly pleased if you could let me have the photograph by Wednesday afternoon, for I have then all my work done, and can [illegible] on [illegible] Thursday morning. Please send the bill receipted to Hotel Dupont, Washington.

Yours truly,

[illegible]

[illegible]

[illegible] Feb 6th

Mr James:

[illegible] Tuesday, and shall
[illegible] I am going [illegible]
[illegible] on my way to Northampton, probably
Thursday next from twelve to three o'clock; and will
[illegible] you those same drawings of Executive Chamber
[illegible] belong to Mr. Kline. He says you can keep them a
week or two, which will give you time to make a copy,
if you wish; and I can bring them back with me
[illegible] Philadelphia. I hope also to take with me
a rough sketch of Second drawing of Second Story
which I gave before. Mr. Kline and I in discussing
the plans with the meeting at the bottom were speaking of
[illegible] as being in use for a number of years.
[illegible] not heard of Mr. Fenton's plans.

If you can keep your appetite on Thursday until
[illegible] I will [illegible] until half past one or two, I should be glad
to [illegible] with me at home [illegible]
I do not have to hurry off to catch the train.

Yours truly,

Mary Smith Cassatt.

North Fifth Street, Philadelphia, Feb 7th

Thomas Sparks Esq.

Lancaster.

I left at the Academy last Thursday evening
[illegible] full of the last Indian
[illegible] published I wrote upon a fortnight ago
& I did not see you there this evening I sent you several
different kinds in each parcel according to
Correspondents, except that one or two kinds
in the list are missing. [illegible] in little bags in the
box were bought in the bazar, and had not been specially
selected for sowing; the others came from a regular seeds-
man and were selected. The first set that came (eight or
nine kinds) I carefully picked over and freed from mice
[illegible] & after it must had been killed by burglars
the Academy last December; I hope the burglars did not
[illegible] them. The other set arrived in
[illegible] seeds in it were all dead, eight
[illegible] have not been drawn away
[illegible] eggs may yet hatch and come
[illegible] country & be a blessing instead
[illegible] I did it would have
[illegible]
[illegible]
[illegible]

135 [illegible] [illegible] Street, Philadelphia.
7 Feb. 1872.

My dear [illegible]:

I was delighted this [illegible] [illegible] your letter [illegible], and to learn [illegible] that you and your family [illegible] so happily and [illegible] doing so well [illegible] of the alarming dangers you [illegible] passed through. I [illegible] the [illegible] anxieties you were suffering [illegible] [illegible] night and the following [illegible]. [illegible] [illegible] have been [illegible] [illegible] at such a time, and [illegible] [illegible] more than ever [illegible] [illegible] you [illegible] so long, [illegible] which [illegible] [illegible] [illegible] you. I was on the [illegible] [illegible] [illegible] [illegible] Sunday afternoon [illegible] I was called away [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] of January [illegible] [illegible] [illegible] or two weeks; and [illegible] [illegible] [illegible] here [illegible] going [illegible] [illegible] [illegible] be gone a week [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] preparation for the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

Northampton 9 Feb. 1852.

My dear Lucretia:

Here I am again you see. I came
to Trumbull Springfield and as I had but little money, I
left my trunk there & my respects to Pierrepont. I am in hopes that
some of your hospital or theological [illegible] the town
will fall within the next few days so that I may see
you here. I am half afraid that I may be sent
from you to Philadelphia; but hope not. I shall
have all a week to stay, and shall try to call on you on my way.

Hawley had written to know when I was coming
& inquiries from me being answered as to what
[illegible] a certain [illegible] [illegible]
[illegible] some time ago, signed [illegible] Old Ben
[illegible] of his female [illegible] [illegible]
[illegible] indignant at the sentiments of the piece and
[illegible] by dropping a very private letter
[illegible] the publick as he will see. I am
[illegible] would seem to be old and sad Christ
[illegible] and in the Club's eyes with all it
[illegible] and as I believe unfashionable of Jesus that
[illegible] the publicly strongly before the public
[illegible] of the [illegible] [illegible]
[illegible] Christ [illegible] with the Lord of [illegible]
[illegible] [illegible] that it is [illegible]
[illegible] [illegible] [illegible] upheld me
[illegible] [illegible] and I [illegible]
[illegible] [illegible] [illegible] that [illegible] by a
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]

Confession before the Odd and End Club
of Northampton

---

An unexpected degree of interest has been shown in regard to [a letter] written lately to the Springfield Republican by a Crusty Old [Bachelor] who took for his text an essay that had been read before [illegible] in his town. A letter in answer has also been written [to the] same paper by J. S. C. with some apparent bitterness and [in a] very cutting style.

I am the Crusty Old Bachelor; and, although my crust [is] happily so thick and my conscience so clear as to be [not] at all cut by the language of the answer, yet as bitter~~ness [illegible]~~ [illegible] [its bitterness] ~~[illegible]~~ [insult] condition, it is perhaps [illegible] [illegible] ~~a~~ a matter of apology.

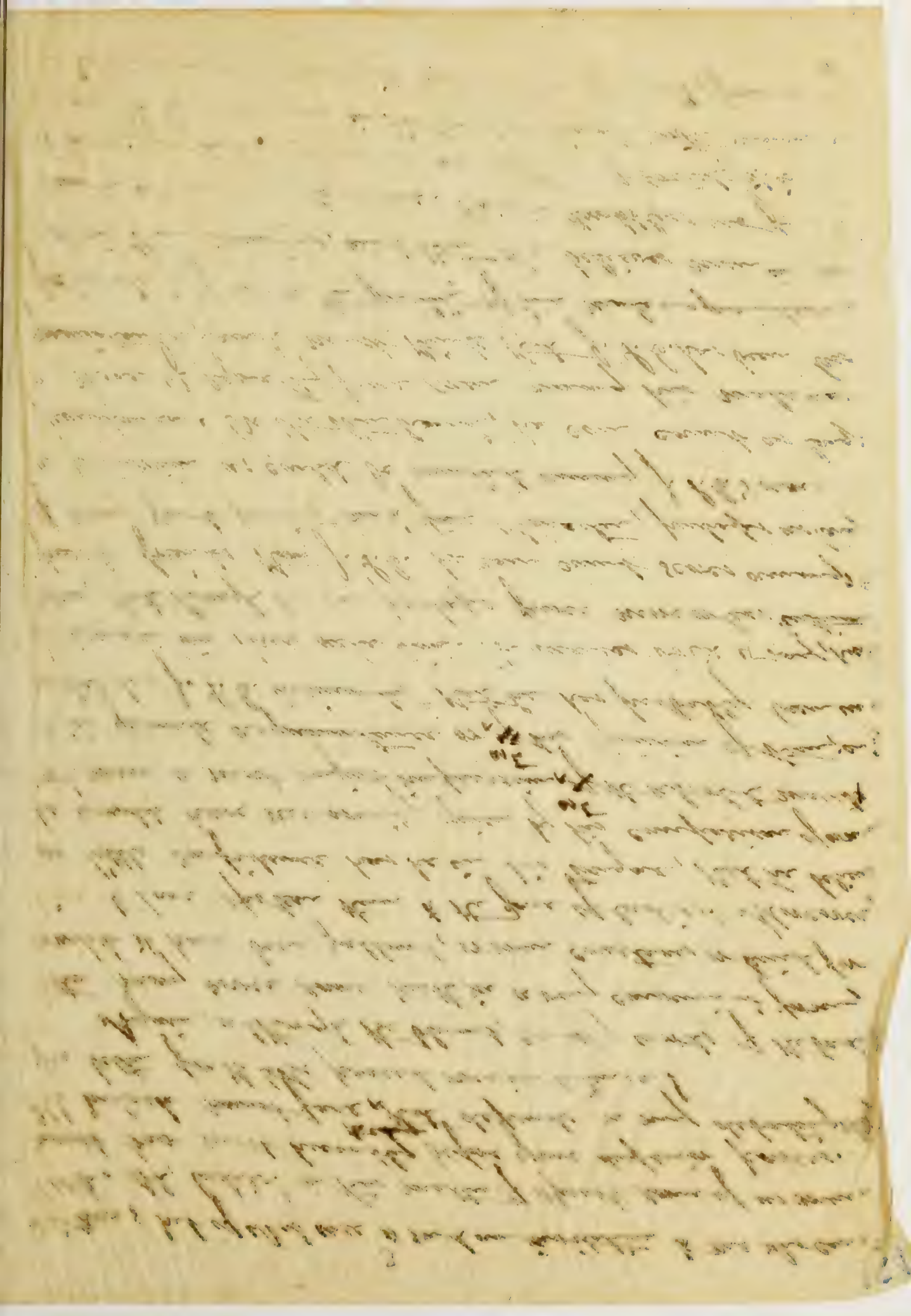
The complaints of J. S. C. are mainly three: first, that I dragged a private club before the public, violating the confidence of its meetings; second, that I neglected the opportunity I had of making my remarks before the club instead of before the public; and third, that I unjustly accused the club of [illegible] of [illegible].

[Any] impartial judge, it seems to me, would [illegible] [illegible] [illegible] [illegible] of a [illegible] [illegible] [illegible] as [illegible] [illegible] [illegible] [illegible] dragging of any [illegible] [illegible] [illegible]. The club had [illegible]

[illegible] [illegible] [illegible] [illegible] it was not [illegible]

[illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible]



St. Paul's Church, Philad.
Feb. 1872.

Mr. W. T. Laird

Willow above Broad.

Dear Sir:

Please send me two tons
as early as convenient after the
first Lorberry coal, egg size, as before
and oblige

Yours truly,
Benj. Smith Lyman.

[illegible] Brahmo Marriage Bill [illegible]

[illegible] Brahmo Marriage Bill [illegible]

[illegible] Brahmo Marriage Bill [illegible]

[illegible] general body of the Hindoo community [illegible]
[illegible] caution. Of course the Brahmins of the 4th class
follow out their strict principles [illegible] [illegible]
to associate but they are not [illegible] from the rest
the community; but the different castes of Hindoos are
[illegible] to different classes of Brahmins, the Kanarese
[illegible] Bramha Samaj Church of Brahmins are pro-
[illegible] different castes among each caste of
[illegible] from each other! But the Brahmos deprecate
[illegible] Hindoos members of the Hindoo Com-
[illegible] which the present Lawgiver seriously

[illegible] faithfully

"Dijendranat Tagor

"and

"Nobogopal Mitter."

[illegible] part of the letter the writer accuses some [illegible]
[illegible] Brahmo) of "openly worshipping Babu Kesab
[illegible] and Jesus Christ under Mozoomdar the spiritual
[illegible] Emanuel of Salvation," but [illegible] writer
[illegible] to native of Samaj. He [illegible] advocate
[illegible] but while only three Samajes were opposed
[illegible] in favor yet, a statement that seems to

[illegible] tell you at Simpfield & Allerton Bright
[illegible] and just have posted the
[illegible] and [illegible] it [illegible] and the
[illegible]. I wish you could be here.

[illegible] my dear friends from me & share.

[illegible]

[illegible]

1107 South Fifth Street, Philadelphia, 18th

My dear Father

On reaching Springfield the day [illegible] Wednesday
I found Robert & Mary with them until evening; but it was
then he had been unexpectedly called away to Boston, and was to
come back at night. So I decided to stay until midnight when
I saw in evening with him; but evening came, and he did
not arrive. So I concluded to stay until morning at
seven and came at midnight. Finally left
after a pleasant visit there on Thursday noon, and
on arriving at New York went straight to Uncle Edwin's
in Brooklyn, reaching there about seven o'clock. Found
all gone & time very slow, and staid at home
[illegible], until after eleven; so had a good
visit by myself. Johnson had gone to a College
day before. Annie had been a little indisposed
but was better. I spent the night there and left next
morning. I shaved off my design for the mitred gable
& base, and it seems I less objectionable & therefore
will thus be perfected; & finished it will seemed & I am
quite tolerable. Reached James Fallon's about
at noon. He [illegible] in usual health &
busy as ever. Found several errands to do in New York
which detained me until the afternoon
[illegible] Delaware, who had brought

Sally (or Annie) & her Annie leave, and hoped to
Annie [illegible] for a visit [illegible]. He
reported all in usual health & plenty, and there
has a very encouraging [illegible] from
about Phil, who would seem to be improving decidedly
There had been no bad news since last Tues and
no letters. I received here about eight o'clock
P.M. in time [illegible] the Thursday letter
setting, and found that Father Tuesday had gone
West [illegible]. He went last Wednesday and
to come back next Tuesday. Dear Aunt Susan
& Mary [illegible] and I found them well
& Mary [illegible] & Annie & Aunt Susan
are [illegible] Emily's to-[illegible]day and had gone
when I arrived. There has been another terrible
storm [illegible], last week, and Emily is less sunburnt,
and looks worse in her face than ever [illegible]
[illegible] yesterday from the effects of [illegible]
with the [illegible] made by Mary. I had been
[illegible] from Susan & the boy, and after, having one
[illegible] had [illegible]. He is very fine & well
and has [illegible] & like it
[illegible]
[illegible]
[illegible]

135 South 12th Street, Philadelphia, 7th Feb. 1862

Miss Susan B. Lyman

Jamaica Plain, Mass.

Dear Friend:

Your very welcome favor of the 27th ult. came to hand, but I spent 10 days in Boston, and did not receive it until my return. I had a visit from Mrs. Northampton just after Christmas, but I might be able to come back by way of Boston, and so pay my respects in person. I was sorry to hear of the sickness in your family, and sincerely hope all will be well again. I was very glad to learn by your letter how you were getting on, and should be pleased always to hear from you. Mrs. Lyman's daughter came with her to Philadelphia, and remained with her about two months. She was well and seemed much pleased with her visit. She has begun the study of Italian this winter and carries on with her German, and indeed with most of her studies as well as ever. Her health, however, is not quite as good as it was when she left us. She writes her self that she has begun to study Italian with Mr. Mazzini, and is very fond of her master. She has also become quite a proficient on the piano. She has a very fine instrument, which she purchased soon after her arrival here. She has also a very pleasant room, which she has furnished herself with a few articles of furniture, and which she keeps very neat and tidy. She has also a very pleasant boarding house, where she is very comfortably situated. She has a very pleasant room, which she has furnished herself with a few articles of furniture, and which she keeps very neat and tidy. She has also a very pleasant boarding house, where she is very comfortably situated.

## Importance of Surveying in Geology

The importance of topography to geology is so commonly understated as to deserve to be pointed out. [illegible] region. The relation of topography to the different branches of geology may be seen at once by a glance at them all.

Geology is well understood to consist of the observation of facts about rocks, the material of the earth (Geognosy) and the explanation of those facts (Geogeny).

The facts to observe are:

I. Structure, or (1) Structure meaning the dip and strike at different points, the dip, shape and position of basin and saddles; (2) Vertical Section, that is, the thickness of rock masses and of their parts; (3) Horizontal or geographical position.

II. Physical, such as texture, whether sedimentary or crystalline; and if crystalline, whether granitic, porphyritic, [illegible], globular or concretionary; constituent minerals, whether compact or granular; coarse or fine; homogeneous or heterogeneous; hard or soft; firm or tender; with cleavage or not; [illegible]; colorable or uncolorable; fusible or infusible, magnetic or not, and constituent minerals.

III. Chemical, that is, the composition of the rock as to minerals or [illegible].

I. Paleontology, a. what kind of [illegible] on the [illegible] (1) Salt-water; and, [illegible] (2) Freshwater; 3) Land.

Knowledge of the general character and [illegible] that is needed by them for geological purposes, for understanding the nature of the rocks and the successive changes to which they are due. The special fossils that may be used in different beds of rock may be of great importance in the history of life in the world or of organisms (paleontology); and may sometimes give more or less valuable aid in determining practically the relative ages of such beds. But in general it is rather the fossils themselves [illegible] that [illegible] the animals or plants whose remains are preserved in them; and geology gives to paleontology far more in value than it gets in return. It is [illegible] for paleontology to become a part of geology, as it often is, rather than a separate science. Paleontology in truth only helps out geology in a very few of the many physical and chemical facts about the earth's materials, and structure which [illegible] every great importance. [illegible] ranges from bed to bed in the general [illegible] as valuable, particularly [illegible] fossils, shells, [illegible] etc.

The facts that [illegible] are of two kinds, namely physical or chemical, size, position and general composition of rocks or groups of rocks. The explanation of these facts must necessarily be of a physical or chemical nature.

I claim then, that both the facts of geology and the explanation given are always either physical or chemical, while the most important question in the general character of rocks is shown by physiology

The facts learned by measurement, though they can scarcely be separated wholly from the other class of facts do not yield to them in importance. The question where a rock of a given physical or chemical nature is found, what is its extent and what its position relative to other rocks and to the sea level are at least as important as the physical and chemical facts themselves, both in theoretical geology and in practical mining. Indeed, the geometrical facts of themselves would sometimes have some of the most important physical [illegible] as, for example, the shape of the surface of the ground very often shows the relative hardness of the rocks that underlie it, and in a limited region shows by that means what beds of a known series underlie given points, such as a coal bed marked at its outcrop by a terrace, or a sand bed of rock near [illegible]

For a thorough understanding of geology of course intimate acquaintance with the laws of physics and chemistry would be needed; but for most practical and even theoretical purposes only that common knowledge ~~acquaintance~~ with them is wanted which ~~almost~~ every man has, and geometrical measurements become the sole and all important requirement.

The necessity of some sort of geometrical representation of some of the most important geological facts has been acknowledged almost universally by the use of maps and of more or less widely understood sections. But it is perhaps the very imperfection of such methods as they have been employed that has brought this branch of geological work into the undeserved contempt in which it generally lies; and such geometrical representation has at best almost always been used solely to set forth geological facts, seldom as a means of finding them out. They often, indeed, tend merely to show the geographical distribution of different groups of fossil animals and plants. Even when hills or mountains are shown it is only by ~~shading~~ or in vertical sections lines with all true geological structure

The cross section with [illegible]

the varying reigns of the surface can be found how the rocks lie, the true aim of a geological section. Hence a field section not only finds the geological facts to be represented, but must almost unite as an aid in working out the geology from the bare disconnected facts of nature in the field, and in correcting or rectifying the generalizations of the mind.

A geological map should be a geometrical construction on paper of the earth's surface and should show as fully as possible the shape of the land marked with the places for observed rocks, and should show the position of the rocks or of some of the chief beds of rock on the surface as well as in it; and should be accompanied by a section to show the thickness and position of the rock beds, as well as by a cross section.

The relative position of points on the ground is found of course by the measurement of horizontal distances and angles; the height of points is found by levelling, that is the measurement of vertical distances. The places of occurrence on the surface are well enough laid down by any of the ordinary methods; but the form of the surface is far better shown by contour lines (lines of equal height) than by hachures (lines of steepest slope), or shading (dark at one side of the hill). And in a large scale the contour lines must be set out in level or even lines, and should be drawn in books of large size as a 8. va

vals when the contour lines are given. (although) (not) so as to assume as level a foot in level or even more, although, many details must be left out ~~even in~~ (Nile) we have much more information than hachures or shading, and show roughly at least, the height of mountains their comparative and steepness; and in comparatively level ground, where hachures and shading have nothing whatever to say, contour lines show not only the height but the direction of the slopes and their steepness

ling can only show the steepness of the ground and at the very best can do this only very roughly indeed. Hachures aim to show the steepness and direction; but can show the steepness no better than shading and even worse. Slopes of greatest steepness would often need far greater delicacy of touch and of eye than either are capable of. Neither shading nor hachures give even a rough idea of the relative height of ground at different points. Contour lines on the other hand show with more or less exactness the height of every point on the surface, besides giving with great nicety both the direction of greatest steepness and its amount. There is in fact no comparison between the merits of contour lines and those of either of the other two methods; and the only plausible explanation of the fact that contour lines are employed so rarely is that

their statements, they what for their preparation a more definite knowledge of the shape of the ground or at least a clearer idea of it, and consequently greater labor. Hachures furnish a vague language that is fitted for conveying with ease vague information; what contour lines will tell, they tell with precision. If the information at hand is inaccurate, contour lines will express with clearness the best opinion or guess that can be given by the map maker, whose guess even may be of great value to those who have not had the means of forming an opinion. The uncertainty of the information should at the same time be shown by the wording of the title of the map or by a note upon it or by stating in the contour lines. Indeed any desired degree of vagueness can be given by leaving the distance apart of the contour lines indefinite or only more or less approximately uniform.

It is very easy to give the appearance of relief to the map by thickening the contour lines on one side of the hills and by altogether leaving out half of them on the other side; so that the hills may look as if they were lighted by the sun on one side and in shade on the other. But some confusion might arise in reading the map, because the very effect of relief would be also given by the more obscure effect of the lines [illegible] depressions of the ground. A [illegible]

[illegible] part may [illegible] a [illegible] than it really is, and [illegible] [illegible] of [illegible] on the [illegible] side of a hill may [illegible] [illegible] of [illegible] the [illegible] lines [illegible] only half [illegible] [illegible] [illegible] the [illegible] again [illegible] by [illegible] [illegible] the [illegible] on one side of the hill, [illegible] [illegible] [illegible] [illegible] on the other side by [illegible] [illegible] lines of [illegible] distances to show the steepness of the ground by their closeness. Confusion [illegible] especially be guarded against by making the [illegible] lines of a different colour from the shading.

As contour lines give the best means of showing [illegible] paper the shape of the surface of the ground, so they give likewise the best means of showing on paper the shape of the surface of a bed of rock. It is seldom that the surface of a bed of rock is laid bare for any great distance by nature so that it can be mapped like the surface of the ground; but it often happens that this can be done in mines. In these cases it is necessary [illegible] the beds and draw the contour lines with more [illegible] certainty from the exposures that happen to be visible. Not only may the actual exposures of the [illegible] be regarded, but as the beds above and [illegible] are more or less exactly parallel, its position [illegible] reckoned from an observation of these [illegible] [illegible] [illegible] the [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] as well as their [illegible] [illegible]

In employing making Observations for mapping the surface of the ground, besides taking the level of certain determined lines across it one object should be, that the direction of a level line and the direction of sight may be with it as nearly as can be easily taken. If such observations as these are made at pleasure enough a perfect general representation of any kind of rock can be made. Even if the observations are too few for that, they may yet be enough to form a reasonable conjecture as to the position of the bed, with more or less uncertainty. In very puzzling cases on paper with pencil, which shows of the position of rocks with immediately coincidence a geometrical construction of them and gives a great deal of information beyond what can be guessed at in the field. The eye alone is only of careful observation and can then bring upon the plan the biggest load without the aid would be very confused and muddled.

The known or conjectured shape of the surface can be shown on paper better by contour lines than in any other way, and is generally so much more regular than the shape of the surface of the ground. A contour line of one will not be mistaken for a river even if they be drawn in the same [illegible] and sometimes are

different beds may be so drawn without confusion
the points where the contour lines of the bed cross
the same contour lines of the surface show the pos-
of the outcrop of the bed, one of the most important
features of maps, whether for practical or for the
ideal purposes. The law of V's and the geometrical construc-
tion, as commonly stated to pupils of the outcrop they
are taught, very often when it would not otherwise
be noticed. If the dips are very steep it will often occur
that the contour lines of a rock bed (the
underground contour lines) do not run together in level
lines of the surface; they may be a hundred
feet apart in level instead of ten, and yet show
properly well the slope of the bed. Sometimes it is
even very well marked by the outcrop and a single
contour line, that for example of the drainage level
of the region, or the course that a cliff or drainage would
take on the bed in question. With surface contour
lines and underground contour lines the dip of the
bed below the surface at any point can readily be
known. It is highly important in sinking a shaft
or tunnel to ascertain the yield of a bed above
given level.

W.R.

is useful to [illegible] make a full section of all the beds
with their thickness & show the position of every bed of rock
in every point. The thickness of each bed in the order
must be measured, of course, at right angles with
the dip of the beds; and a drawing of the whole series made to
some scale all on the same scale. It is plain that the thick-
ness could not be measured at one point, but the
different points can be taken where exposed. The geo-
logical Construction of the map will show the relations
of the different beds and the gaps between them, if any.

Having the surface of the ground and the position
of more rock beds shown by contour lines and a
section of all the rock beds with their thickness it is easy
to draw a cross section of the country in any direction
so as to show the position of the ground and of
each bed. Such a section across the synclinal axis
or the anticlinal axis of the basin
and saddles is especially useful. The most valuable
useful section is commonly one along the axis
of a basin. Of course the vertical and horizontal scale
of such a section must be the same, otherwise the
rock structure, the chief object of the section, will
be greatly distorted. In making an underground
section facts often come to light that would, if
not known, lead to misinterpretation.

level only at distant points and the steepness of the slope at points where there is no exposure. Such sections are therefore often very great help in making a complete

Such maps and sections, then, show completely all that is known (or conjectured) of the geometrical facts of the beds of rocks, the thickness, extent, position and precise shape of each bed, its position with reference to each of the other beds, the shape, size and position of the basins and saddles, what part of each bed still remains underground and what part has been worn away to form valleys, what part is above the lowest drainage level of the region or any other given level and what it is like, and the new facts & making the maps and sections is a very important aid to gaining such knowledge. These facts are not only of the highest importance themselves, but they are also the basis of true (& just work) reasoning towards the explanation of the purely physical and chemical facts of rock beds.

Simple & and clear as all this seems yet it was not long overlooked and is still so much disregarded that maps showing with the least completeness the geometrical beds of the surface and of the rock beds [illegible] are yet very few even in Pennsylvania, in fact, can be counted on the fingers of [illegible] doing nearly all the work of geology

138 South Fifth Street, Philadelphia, 24 Feb. 1857

Commander A.F. Carman

2d 28 Pine St., Philada

Dear Sir:

After leaving you last evening it occurred to me to ask you whether it would not be practicable for the geologist needed in the Nicaragua survey to be employed a shorter time than the whole duration of the expedition, for example, either for the first trip to Nicaragua or for the second, instead of for both and the intermediate interval. The $7.50 upon with the existing preference in his behalf might [illegible] that time, [illegible] if [illegible] more competent man than could be had otherwise and so be really advantageous. If the trip of next winter would answer the purpose, there would be time enough that to look about for a suitable man. If he could be called for the present trip it would be easier still as we understand that the engagement was to be for both. In this case I should be glad to know the [illegible] expected sail in your letter to Mr. Lesley of the [illegible] but the letter is not dated.

I remain

Very respectfully yours

Benj. Smith Lyon

135 South Fifth Street, Philadelphia, 26 Feb, 1872.

Commander A. E. Edwards,

No. 2178 Fifth Ward

Sir,

Your favor of day before yesterday came duly to hand. I received it too late to go to Niagara the next day, & the Commandant is just now at Salt Lake City, and I can scarcely arrive here in time, even if the arrangements are satisfactory to him. He is a Scotchman, well educated in business abroad. He is an American in his city, with an English Mr. Lesley is better acquainted than I am; he is a man of notoriety with experience yet, whom I suppose would accept a subordinate small salary in first offices. I have not disturbed his mind with any written matter yet, as Mr. Lesley is expected right away and then he would be entitled to the work. Besides, if a salary can be given, as you intimate, I should prefer to go with the expedition myself, especially if it is what suits me as I understood from you.

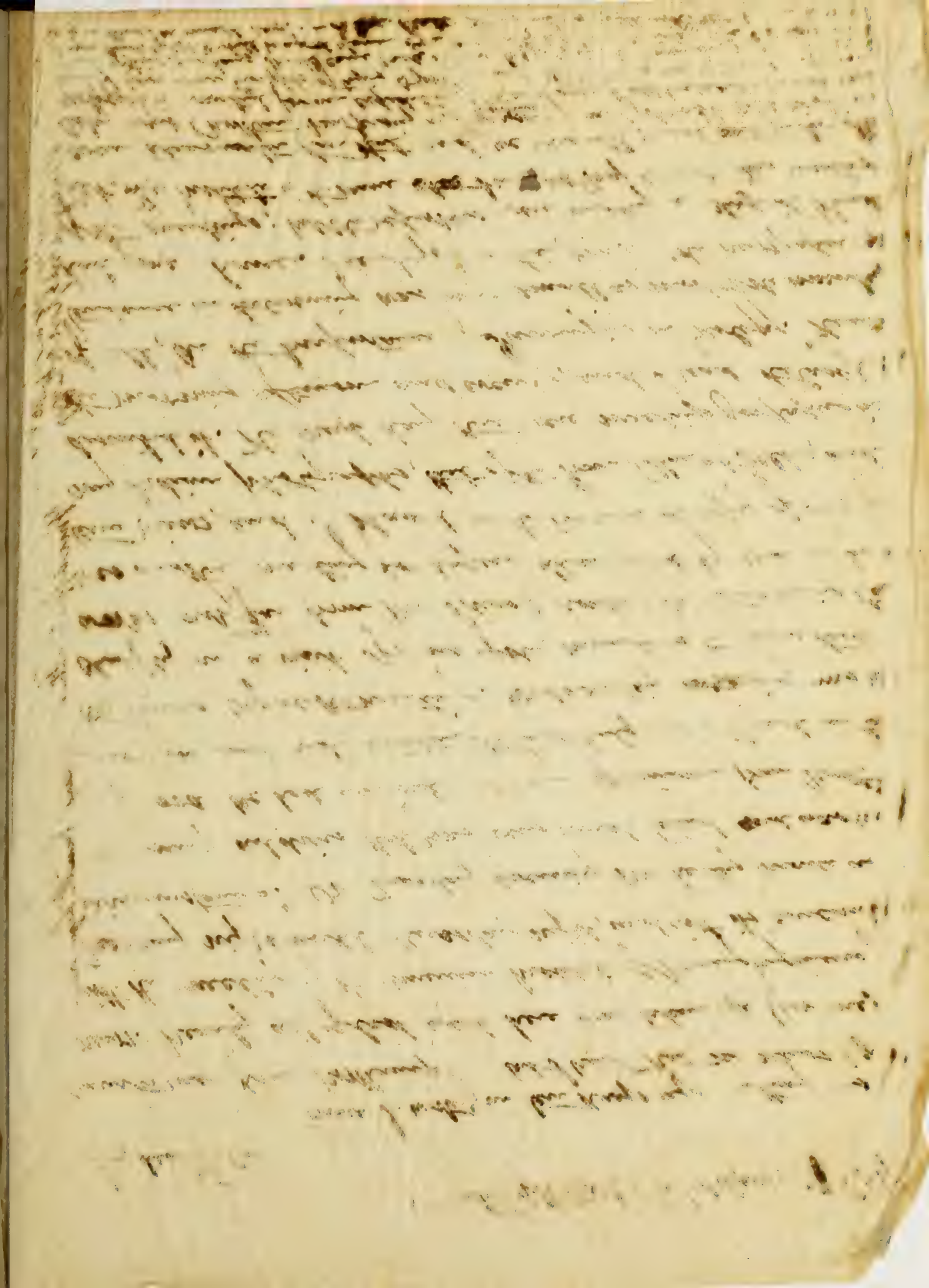
Very respectfully, yours,

Benj. Smith Lyman.

[illegible] Street, Wednesday, 29th [illegible]

[illegible] Father.

Since I wrote you ten days ago nothing has come from Northampton but I write that as usual. Nearly all of last week was taken up (for me) with the meeting of the American Institute of Mining Engineers, Tuesday night and Thursday night, and with its concomitants. On Thursday evening Mr. Leeby made an interesting address that was very much liked and was very good. He had received that afternoon from Northerlins, and had written the address of which I sent you in two hours before the meeting. Wednesday morning we left in a visit some of the members of the Institute paid to the works of Messrs Roebling's sons. In the evening there was another meeting for papers illustrated by images in the stereopticon, and I showed a series of my own [illegible] photographs, that I got from Miller at Delhi, and described it. The next day there was a meeting for papers in the morning afternoon and evening, and I read Kitchell's paper on the Importance of Phosphorus in Steel. There was a dinner in the evening which was very dull, as most such dinners are. I send you in this issue of the newspapers a report of the meetings, but the reporters are mostly a stupid lot and the whole affair is to me very tiresome. This morning I breakfasted with Dr. Hall, and we were all much delighted with Charlie's performance on the violin, which he has been practising all winter. Mother and I went to the Academy of Music last night to hear Patti sing, but the house was so crowded that we could not get seats, and we came away disappointed. [illegible]



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whose early history (in America at least) is a part of the Pennsylvania State Geological Survey, and whose later history is found in the geological work of the Chief Topographer of this survey, Professor J. P. Lesley, followed by that of others who have learned more or less directly from him. To him alone, in fact, belongs the credit of almost all the advances that have been made in this line of work as well as of having first established its most important principles. Some of its earlier historic unpublished annals, learned by inquiry of him, deserves to be recorded before it is too late.

The Pennsylvania Survey under Professor H. D. Rogers began in the year 1836, and soon discovered a very intimate relation between the surface features and the structure of the rock beds below, a relation that is perhaps more striking in this state and Virginia than in most countries.

Early in the Spring of 1839 one of the assistants of the survey, James D. Whelpley, finished in hand-plane at the end of two years work, all his own, the first topographical map. It embraced all the anthracite ~~coal fields~~ region except the Wyoming Valley.

In 1840 Messrs. Lesley & Kinsley finished a sketch map of the Wyoming Valley in Luzerne Co.

1840

H. Henderson was then engaged in the United States Navy. He made a beautiful map of the Juniata Region, published with Lesley's "Manual of Coal and its Topography" [illegible] At the same time the county north of it was surveyed by Mr Kinsley.

In 1839 J. P. Lesley, who had just joined the Survey, made in Whelpley's style a map of the country west of the anthracite region and north of the North (or Kittatinny) Mountain.

In 1840 and 1841. Lesley was occupied in completing Whelpley and McKinley's maps by adding to the surrounding country.

At the end of 1841 all the materials of the whole state where any mapping had been done were in Lesley's hands, and in 1841 and 1842 he made up the state map and its cross sections.

In all these maps no contour lines were used, but great attention was paid to elevation in the cross sections, and the maps were made with the sections before the eye as a guide in making the curves, and Dr. Henderson was especially successful in this.

In the winter of 1846 and 1847 Lesley made a copy of the state map and of all the sections of the State.

In 1857 he made a great map of the anthracite region for Mr. Rogers, a private individual.

The country was cross barred with section lines at half mile intervals; and the map was made with hand & peculiar system of Lesley's invention equivalent to contour lines.

In 1852 Lesley spent the summer in the field in making (for the state survey again) a great sheet of the Pottsville anthracite region. The country above ground was cross barred with lines three quarters of a mile apart, and the outcrops were run by parties under charge of John Sharpless; while underground surveys were also made by parties under P. W. Sharpless; and Lesley did the mapping. Contours were drawn only to determine the depth of the hardness, which were all worked, showing the slopes of eight or ten systems on a single mountain side. The outcrops in the gaps were marked by peculiar system of hardness that showed the dip. Every outcrop of every coal bed and every rock outcrop were laid down. The map was between twenty and thirty feet long, and has gone out of sight but no doubt still exists among the papers left by Rogers at his death, since the state does not make all the materials of the survey his private property.

At the end of 1852 it was finished only from Donaldson and Tremont to within six or ten

miles of [illegible], and continued in [illegible]
this land [illegible] Baltimore to Ohio Road [illegible]
extended & carry forward and finish the work the
year; but [illegible] was [illegible] & and in 1853 & 4
Dodson [illegible] and [illegible] it was employed [illegible]
the State. With [illegible] parties he could not do it in
[illegible] way, and [illegible] had given up
the materials [illegible] reduced copy of the
map of the Railroad [illegible] with [illegible]
the Mill Sport [illegible] and [illegible]
but Cole, [illegible] and [illegible]
should be called Dodson's map & the profile
Cole does call it.

His and the [illegible] map of the Road
[illegible] and that was published
with his work.

The field [illegible] were [illegible]
[illegible] in 1853 and 1854 [illegible] great map of
the Pennsylvania Railroad Company [illegible]
[illegible] from Johnstown [illegible] Pittsburg & the
[illegible] Virginia, [illegible] part of Westmoreland
and Indiana [illegible] [illegible] miles west
[illegible] feet [illegible] [illegible] connected with the
[illegible] [illegible] [illegible] and [illegible]
[illegible] [illegible] [illegible] [illegible]
[illegible] [illegible] [illegible] [illegible]

of

[illegible] 1852 & 1857 and can be written [illegible]
[illegible] a very number of topographical labor and
skill. It would seem years ago [illegible] Kingston
from [illegible], but it is incredible that so valuable
pieces of work should be destroyed

In 1855 and 1858 Bailey mapped Broad
& Mountain with contour lines; and he calcu-
lated that there were over eleven hundred
miles traversed. None of this has ever been
published and it would be an extremely valuable
addition to [illegible] state survey.

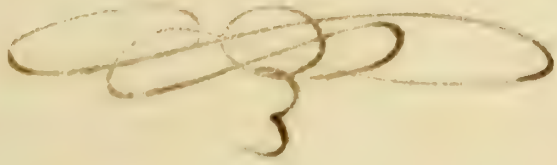
In 1857 he published his "Manual of Co[illegible]
& Topography," in which he set forth more
concisely the relations of topography to geo-
& public the principles of the art as
it finally had first gained form. The
[illegible] many beautiful little topogra-
and studies by way of illustration.

[illegible] time the present [illegible]
[illegible] of reproducing maps
[illegible] and photolithography
[illegible] of his work
[illegible]

pamphlets of private owners of mineral lands; and
[illegible] remains unpublished. The maps cover many
counties in the Appalachian region from Cape Breton
& Georgia, but particularly in Pennsylvania; and
[illegible] sometimes in outcrop lines, with or without shade;
& addition, sometimes only in shading. The [illegible]
seam (say of coal or iron) is shown as then by lines
known their outcrop and the course of a level plane
[illegible]ed, the square the lowest [illegible]
[illegible] or region. The maps are sometimes colored
and sometimes not. They show not only very gen-
[illegible]graphical and geological knowledge and [illegible]
[illegible]ience but high artistic skill and skill.

In 1866 and 1867 the feasibility of using under-
ground contour lines to give the shape of rock beds
[illegible]lowed (sometimes of three or four above one
[illegible]) was proved on some Cumberland region
[illegible] land maps of my own; e.g. the
[illegible] of which was shown to the meeting of the Ameri-
[illegible] for the Advancement of Science in 67,
[illegible]. A number of such maps
[illegible] since that, the earliest [illegible]
[illegible] the Report of the
[illegible] Survey of Pennsylvania. The
[illegible]

The last half dozen years contour lines have come
into more general use, not only for geological pur-
poses, no doubt solely through Gilbert's examples and
teaching. R. T. Hatchell, J. W. Harden, W. J. Peace, A. Keyes,
J. Bowles, J. T. Blandy and perhaps others have
published good work of this kind; not all of
them, however, marking the position of the beds of rock
given by an outcrop line, still less by a level.



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[illegible] Iron Pillar at Delhi, India,
by Benjamin [illegible]
(Read before the [illegible] 21 Feb. 187[illegible])

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The object of this paper is mainly to [illegible] on the [illegible] [illegible] of a [illegible] photograph of the Iron Pillar at [illegible] [illegible] the lately [illegible] [illegible] an article that [illegible] [illegible] Engineering [illegible] (Feb 18[illegible])

[illegible] about eleven miles south of Del[illegible] on the [illegible] of a [illegible] [illegible] 53 feet [illegible] famous Kutub [illegible] by colonnades [illegible] nothing [illegible] [illegible] are [illegible] [illegible] commonly supposed to have been built around the Iron Pillar; but this may possibly [illegible] brought here like the columns about it [illegible] set up as an ornament [illegible] before the mosque was planned.

The pillar is a solid shaft 22 feet high above ground and has been proved by digging to be at least [illegible] feet deep in the ground without finding its [illegible] [illegible] each [illegible]

[illegible] but very much more than [illegible] of the work of a remarkable an object would be hidden away out of sight. The diameter at the bottom of the shaft is 16, 4 inches, at the top 12 inches. The shaft is very straight and nearly cylindrical and the taper is nearly uniform. The weight would therefore be from twelve to fifteen tons. The top portion and a half is cut into an octagonal figure, finely with a chisel. The writer in the Engineer has a photograph the mark of the grasp of a heavy round shot is seen a little about mid height of the column, with a slight crack on the opposite side, as if the blow had been enough to break the shaft when suddenly [illegible] by [illegible] of elasticity.

About half way up the pillar from the ground is a [illegible] of six lines that was copied by Capt. Kittoe and described from his copy, in the Journal of the Asiatic Society of Bengal (Vol. VII, 1838) not by Capt. Kittoe (as the writer in the Engineer seems to suppose) but by the editor of the Journal, the distinguished James Prinsep. The date of it is in Sanscrit in a character used about 1750 years ago; but the letters are somewhat squared as if cut with a narrow steel chisel or punch and a hammer. The inscription says the pillar was set up by the king Dharmma with [illegible] strength over the Buddhists [illegible] an account of [illegible] approved by [illegible] Indrajee

3

[illegible] Persian speaks of the shaft is unquestionably
[illegible] iron.

The present popular legend is that this pillar was put into the ground about 700 years ago by Pithora, the last Hindoo Rajah of Delhi by the advice of his Brahmins [illegible] his power forever by crushing the head of the snake that holds up the world; and that the king [illegible] in doubt took up the shaft and was [illegible] to find it really covered with blood at the bo[illegible] Brahmins declared the spell broken; an[illegible] the Mussulmans soon after conquered [illegible] there has never been a Hindoo government [illegible] A noticeable feature of this story is that [illegible] not mentioned as anything of very [illegible] workmanship; nor as supernatural [illegible] be the case with wonderful [illegible] their age and their origin have [illegible] this may possibly come fr[illegible] [illegible] among the modern [illegible] very great difficulty in ma[illegible] [illegible] familiarity [illegible] the story must have [illegible] height of the pillar and [illegible] ground [illegible]

[illegible]

7

[illegible] material of the pillar has never been called "wipes
[illegible] would seem to be due to the primary [illegible]
[illegible] method of working. It has also been often
[illegible] "cast" by the same writer apparently quite unac-
[illegible] with metallurgy, but how can loudly be a
[illegible] if it is forged. The probable method of cutting the
[illegible] letters (with a chisel and hammer) could easily have
[illegible] used [illegible] to [illegible] a material as cast iron, and
[illegible] words "engraved by his sword" seem to imply at least
[illegible] cutting was done after the blade was made. As
[illegible] [illegible] to, the mark of the tool [illegible]
[illegible] [illegible] of a small piece of the metal, [illegible]
[illegible] [illegible] according to their judgement
[illegible] British experience of the character of wrought iron. My own
[illegible] may be added, for I was
[illegible] ground only a year ago in company with
[illegible] engineer, and we were both convinced
[illegible] concerned iron.

[illegible] aside from these points it would perhaps
[illegible] be easier to work for it as a forging than as a
[illegible] casting. The material of any one method of
[illegible] manufacture would certainly fluid, but rather
[illegible] from the [illegible], above all no method that
[illegible] could have be surface of casting twelve or fifteen
[illegible] [illegible] [illegible] [illegible] hand [illegible]

185 Fourth Fifth Street, Philadelphia, 28 Feb. 7

Prof. Raymond Esq.

Editor of Mining and Engineering Journal,

37 Park Row, New York City.

My Friend:

I send you herewith my paper on the Iron Pillar at Delhi, and in another envelope the paper I am writing.

If you prefer not to print the Iron Pillar paper, it is not short enough, it is no matter. But I have for my object in it to correct some mistakes of the Engineer and to make the theme more incredible. I say that the pillar would be of forged iron, or even that it is small, for the matter of that. For he suggests difficulties for the sake of inventing a theme strange without any exaggeration.

I hope that you will find the papers all right.

Very truly yours.

Benj. Smith Lyman.

P.S. If you notice in your report what Lyell said in regard to my paper on Mineralogy, I would say that he explained to me after words that his use of Carboniferous in 1842 was not for geological purposes but simply for prospecting or engineering purposes. I did not claim in this paper the original invention of certain lines for Prof. Lesley, but only the publication of them to geologists. — B. Lyman

Topography of the Punjab &c &c

by Benjamin Smith Lyon ... Read before the ... in Mt. Lebanon Iowa ...

... has mainly ... the term "Salt ..." to the Topography of the ... region: its situation, general features, ... and ... height of ... the character of the rock ... [illegible] ... the ... [illegible] ... time, the mode of cutting it ... and ... the ... [illegible] ... and where each kind of topography is to be seen, and the ... [illegible] ... Salt ... chiefly in order to show the great ... of ... [illegible] ... which ...

... brief sketch of the geology of the region ... from ... [illegible] ... the oil, from the writer's own ... Report on the Punjab ... [illegible] ... other points, from other works.

The general section ... of the region ... [illegible]

| | |
|---|---|
| Miocene (Siwalik), perhaps | 3000 feet. |
| Eocene (Nummulitic), with oil | 1900 " |
| Mesozoic, perhaps | 700 " |
| Carboniferous, without coal, about | 6000 " |
| Permian, with salt and plaster | 2850 " |
| | 15300 " |

... oil or asphalt (dried oil) or rock salt (smaller asphalt) is found at a dozen ... in any ... [illegible] ... are all in ... rocks, except ... [illegible] ... The ... oil ... very small ... extent, sometimes only a few feet, ... [illegible] ... as much as half a mile. In this case the oil bearing beds ... [illegible] ... in the other twenty, and in the rest much less. The oil comes ... [illegible] ... in ... from sand ... [illegible] ... The yield of one well was at first ... [illegible] ... by ... the ordinary ... [illegible] ... and seems likely to ... [illegible] ... a ... [illegible] ... a ... [illegible] ... and wells might be bored in the region, ... [illegible] ... gill, that, of hardly 7000 barrels. The natural ... gill ... three ... a day. The oil is dark green and very heavy (25° B. or less). The ... [illegible] ... in the Punjab oil deposits ... and a belief in the distillation of oil from ... [illegible] ... its ... from below with gradual passage from the lower parts of a ... [illegible] ... the same ... its origin from any source but the decomposition of organic matter in the rocks ... is there anything here for ... clay) ... with hope of finding large ... by boring in the ... below the oil bearing bed.

The occurrence of ... gypsum and alum shales in large ... with ... and ... with ... of sulphur, ... coal and gold in small ... and ... [illegible] ... iron ... [illegible]

... [illegible] ... goes with the paper.

135 South Fifth Street, Philadelphia, 2[illegible] Dec. [illegible]

Prince L. Hope Esq.

Hackettstown

New Jersey.

My dear Sir, I send you herewith at last the sketch you wish[illegible]
for your paper in the Pennsylvania Telegraph, and hope you will
find it of the right length and satisfactory. I found, by
experiment that it would be impossible within the limits you
[illegible] anything like an abstract of the first and leading ar-
ticles, and so have given the chief place to the geological ar-
ticle which the general reader will naturally have
[illegible] by, although it is really not so new.

[illegible] have been hindered from coming [illegible]
[illegible] Evening

Yours truly

[illegible]

185 South Fifth Street, Philadelphia, [illegible]

Dear Father,

Your welcome favor of [illegible] came
[illegible] Thursday.
[illegible] Sanders are willing to sell you the old house and ten
[illegible] I should think it would not be a bad plan to take it
[illegible] you prefer the comfort of a new house. You would
[illegible] the trouble of building, all moving, at least. The house need not
[illegible] to be set facing the north, but could be put on the
[illegible] end of the lot facing south with the best view
[illegible] that the lot affords. The entrance from below
[illegible] Joseph Saunders's even back as to Mill Lane
[illegible] to be kept open. The house on Linden could [illegible]
[illegible] to Linden Hill. The house in Linden could be rented
[illegible] for five dollars the whole season and perhaps as
[illegible] could easily pay for hoeing weeks in summer if necessary.
[illegible] nothing a good roadway would be a thing important
[illegible] items of building.
[illegible] I had nothing more of the Nicaragua Expedition
[illegible] nor any chance of going with it as satisfactory
[illegible] is gone by this time, not to be sure very pleasantly to
[illegible] stay curious to see the country.
[illegible] are all well as usual. Emily's condition

[illegible] in my love to Lizzy. Let me know when [illegible]
[illegible] to Northampton, & I believe me always
[illegible] Your affectionate [illegible] Your [illegible] Smith Thomas.

North Fifth Street, Philadelphia, 2 March 1849.

His Excellency
Sir Edward Thornton,
Britich Minister at Washington D.C.

Sir:

I have the honor to send you herewith a copy of one number of the Punjab Miscellany, which I have published monthly since March, and beg that you will present them, if convenient, as a gift to the Government of India.

The enterprise meant to diffuse information of the Punjab and its people, but at the time of sending that [illegible] was undertaken by the Secretary of the Punjab and Dependencies, it was not in contemplation to publish any thing more than a Gazette. Several circumstances, however, have since occurred to render it desirable that a more extended publication should be undertaken. [illegible]

[illegible] Feb. 18[illegible].

My dear Father:

[illegible] yesterday and [illegible] have come duly to hand, and I am [illegible] Pratt has finished the [illegible]. I am taking pen in the hope of seeing you [illegible] in a few days, & it will be an [illegible] to you or any one else if I should stay a week or two with you. I will wait. I expect to see [illegible] in a couple of days, and can remain [illegible] but he could [illegible] & [illegible]

I have heard nothing [illegible] Nicaragua [illegible] and [illegible] has said [illegible] I am concerned the [illegible] was a [illegible] offend was very small indeed. [illegible] [illegible] the country, and although it is [illegible] healthy region by the Americans [illegible] drive the inhabitants [illegible] near the river and that it is very healthy [illegible] up in the mountains.

[illegible] Adam of the Missouri, [illegible] Chard; he voted [illegible] will you [illegible] healthy.

[illegible] see you soon [illegible]

Ever affectionately yours

15th & Chestnut, Philadelphia, Feb. 5th.

Dear Riddle,

Yours of the 25th came duly & read with much pleasure. I had written to Lesley & you before & in the meantime will write about a situation for Capt. Wray. An officer of the United States Navy will start from New York on Saturday afternoon next for Nicaragua to make surveys for a Ship Canal across that State; and a man is still wanted for it who is a competent civil engineer and a good mineralogist & practical miner; and the salary you said a man would be one hundred and fifty dollars a month. I think you would do very well for the place, if you would like it. It seems likely to last about a year. Not the expedition come back to the States in June on account of the rainy season, and will go out again in November & stand the winter in the hills. The summer will be given to office work & the climate is represented by the commander of the expedition to be unhealthy during the rainy season. There is a man to whom I could write about it at the mountains, if you will let me know that it is very healthy in the mountains.

If you would like it, you must be in New York on Saturday morning and report to Lieut. F. Kennon, Commanding, on board the [illegible] of the United States [illegible]

(Telegram.)

Philadelphia, February 7th, 72.

C. E. Richter, one of R. P. Rothwell, Mining Engineer, Wilkesbarre, Pa.
United States Naval Expedition goes to Nicaragua to survey for a Ship
Canal, and needs a man as civil engineer and mineralogist, with pa-
y of one hundred fifty dollars a month and travelling expenses. Will com-
mence in June, do office work here, and return to Nicaragua for the
Engagement about a year. Climate undertaken. If you wish to go, see
Commander Crossman at Steamer City of Houston, Pier Twenty, East Riv.
New York, next Saturday before three afternoon. Bring recommenda-
and be ready to sail immediately. Perhaps you can get the situation.

Benj. Mark Lyman.

135 North Fifth Street, Philadelphia.

135 North Fifth Street, Philadelphia, February 7th.

Commander N. H. Crossman,
No. 2128 Pine Street, Philadelphia.

Sir: I have not only written to my friend at
Wilkesbarre, Mr. C. E. Richter, but have telegraphed a
dozen or hundred words, giving him what particulars
could. I trust that he will see you in New York to-
morrow and prove suitable for the situation you have
to offer.

Wishing you at any rate a pleasant and successful
trip,

I am respectfully
Benj. Mark Lyman.

# The Perkatee Coal Tract, Montgomery County, Northwestern Virginia, with a Geological and Topographical Map.

By Benjamin Smith Lyman.

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Location. — The Perkatee coal tract of forty acres lies on the northern edge of the Great Valley of Virginia and in the northwestern corner of Montgomery County, in the gap made in Brush Mountain by Poverty Creek, a county a mile (north by) the mouth of that creek in Tom's Creek, which is two miles above (east of) the mouth of Tom's Creek at the Horseshoe Bend of New River. The tract is (by road) about fourteen miles northwest of Christiansburg, and seven miles north of Ricker's Station on the Virginia & Tennessee Rail Road.

Shape of Land. — The shape of the tract is not far from square or lozenge. It is bounded on the east and northeast by Poverty Creek, and there is a strip of flat land from fifty to seventy five yards wide along the western bank of the creek. The southern boundary is a narrow steep hollow. Between it and the creek the land rises into a ridge, a part of the Mountain, with steep sides and some cliffs towards the south and another near the northwestern corner of the tract. Height of about 250 feet above the point where the creek leaves the tract.

— Professor Lesley has described with considerable detail the northwestern Virginia region in the Proceedings of the American Philosophical Society (Vol. VIII. pp. 1 et seq.

...coal bearing rocks ... belong to what are sometimes ...
... "false coal measures" ... the uppermost ... Pennsylvania ...
... formation No. V and connected with No. X; that is, with the ...
... Lower Carboniferous, or as some call it the Lower part of the ...
... Subcarboniferous. He points out the general geological ...
... of the region, and shows that there are numerous very large ...
... that leave the false coal measures as low as ...
... below the Lower Silurian lime rocks of the ...
... The Perfater tract is only half a mile north ...
... these faults, at Rose's Mill on Tom's ...
... given in one of Lesley's figures (No. ).
... are two coal beds on the tract, are twenty ...
... feet thick, and the rocks of the rocks are chiefly gray ...
... slightly greenish, weathering brown, and ...
... coal measures. They dip about fifteen ...
... easterly, with a strike of north eighty degrees ...
... upper of the two coal beds is the ...
... has been opened by two drifts, one ...
... on the tract and the other some eighty ...
... ninety five or thirty feet higher in ...
... was said to have four thirteen inch veins of ...
... coal, the lowest and thickest being next ...
... above the rock. The previous owner ...
... the property had worked away, and the roof ...
... and water to follow the veins that it was impossible ...
... to work them any further. The upper ...

000

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Was drawn in at the face, but with no room for following measurement of the different layers of slate, as made in it at a point where the roof was a little higher than common; but this was at the moment no good place to measure:

| | Feet | Inch. |
|---|---|---|
| Coal, good, "Top Vein," | 1 | 1 |
| Slate, | 0 | 2 |
| Coal, poor, | 0 | 2 |
| Slate, | 0 | 5 |
| Coal, good, "Two Inch Vein" (commonly 2 in.), | 0 | 1 |
| Slate | 0 | 2 |
| Coal, "Four Inch Vein" (commonly 4 in.), | 0 | 5½ |
| Slate, | 0 | ½ |
| "Trashy" coal and slate, | 0 | 5½ |
| Coal, trashy, "Trashy Vein," | 0 | 4 |
| Coal, good, "Bottom Vein," | 2 | 4 |
| | 6 | 3 |

or in brief:

| | |
|---|---|
| Coal | 4 " 5½ |
| Slate | 1 " 10 |
| | 6 " 3½ |

I made some assays in small pieces of coal from different parts of the vein with the following results:

| | | | | | | |
|---|---|---|---|---|---|---|
| Parting Bed | | | | | | Quality of Coke and Workmanship |
| Top Seam | 1.46 | 1 | 11.09 | 88.18 | — | Coke, well caked, grey, fine lustre. |
| 15 inches | 1.46 | 2 | 12.07 | 87.33 | 12.67 | |
| | — | 3 | 10.96 | 87.04 | 12.96 | Coke, white, not so fine lustre and [illegible] |
| Average | 1.46 | | 11.24 | 88.18 | 12.63 | |
| Four Inch Seam | 1.30 | 1 | 8.15 | 91.22 | 25.74 | Coke, like that of Top Seam. |
| | 1.26 | 2 | 10.00 | 90.00 | 27.22 | Coke, very light reddish grey; |
| (Divided) | — | | 9.37 | 90.61 | 27.98 | very light Chocolate. |
| Average | 1.28 | | | | | |
| Bottom Seam | 1.55 | 1 | 6.50 | 93.50 | 17.65 | Coke, made by a slow heat and |
| 2 Inches | 1.50 | 2 | 6.76 | 93.24 | 19.42 | not well caked, and so light as |
| | 1.49 | 3 | 7.15 | 90.85 | 17.38 | the average. |
| | — | 4 | 7.33 | 90.07 | — | Coke, [illegible] |
| Average | 1.51 | | 7.14 | 90.46 | 18.23 | grey, made by a quite strong |
| | | | | | | heat, white. |
| Main Seam | 1.50 | | 10.24 | 87.76 | 17.50 | Coke, well caked, white. |

Taking away the ashes the value of your (and working) Coke is:

Top Seam, 11.84 to 75.53; or 1 to 6.38.

Four Inch Seam, 9.39 to 82.63; or 1 to 8.67.

Bottom Seam, 9.54 to 72.13; or 1 to 7.57.

Average of all 10.24 to 79.11 or 1 to 7.08.

Gases can be obtained from the Top Seam & Bottom Seam. The Lower Seam, when it can be got

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[illegible] the air or six years; the [illegible] came from the inner end of the upper drift; all of them were kept [illegible] four days in Philadelphia and kept [illegible] nearly warm room about fourteen days before the assay was made. The moisture in the coal was probably very [illegible].

The Coal, except the Top vein, burns (the ash) very [illegible] white, and has kept perfectly in the cabins [illegible] as well as sulphury coal alongside of it. [illegible] covered with an efflorescence and has crumbled. The coal from the Top vein has also crumbled a little, but not excessively.

From the assays that the coal below [illegible] contains (about 3 feet) [illegible] nearly enough between them to make it coke itself by a quick strong heat; so that the [illegible] be obliged in this way with very little loss in the coal. The coal is, however, quite pure; so that no very large proportion of fine coal comes from it, and [illegible] will keep in burning, it could probably be used for nearly all the purposes to which [illegible] applied. The Top Vein would, [illegible] be better to get rid of its sulphur before [illegible] to the furnace; the heat does not [illegible] the coal would also be [illegible] all of its [illegible] the expense of the charge

[illegible] inches; but this great pressure from above causes the [illegible] melted masses to combine would [illegible] found in burning the coal on a grate. The specific gravity is high for a coal that is at all bituminous, being of course the average of ashes.

Little Coal. — The lower coal bed, called the Little Coal, [illegible] has been opened by a small drift about [illegible] long, near the upper drift of the Main Coal, measures twenty inches in thickness and is in [illegible] half an inch of slate near the bottom. Of this thickness it is too little to be worked.

About 300 feet above the Main Coal is a bed of [illegible] two or three inches thick, with a covering of [illegible] slate, opened on the east bank of Powell Creek [illegible] yards below the lower corner of the Pegates [illegible]

[illegible] — The map herewith was made in 1866, [illegible] an attempt to give the first ever made to [illegible] to show the slope of the Main Coal Bed, and [illegible] by the [illegible], by contour lines, just as the [illegible] of the surface of the ground is shown at the [illegible] by the contour lines. As the bed lies very regularly [illegible] lines are straight and parallel, and are distinguished from the much less regular [illegible] lines of the [illegible]. The contour lines of [illegible] are [illegible] apart on the [illegible], and the [illegible]

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the ~~the~~ underground and aboveground contour lines
~~the~~ from level must mark the position of the city.

N. B. The underground contour lines in this
map are confined to the limits of the Peninsula
in order to show at a glance the portion of
the land that is underlain by the coal, what portion
above water level and what below. The map which
is to be photographed was drawn all in one color and
in all respects with especial reference to the
wants of photography.

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Benj. Silliman, Esq. Prof. Yale College, New Haven, Ct.

Capt. Isaac Hillman,

New Haven, Ct.

Gentlemen:

Enclosed please find a post office money order in your favor for six dollars, one year's subscription to the American Journal of Science and Arts. In return please send me the January, February and March numbers of the year to Northampton, Massachusetts; after that for the rest of the year please send to New Haven, Connecticut.

Yours respectfully,

Benj. Silliman

[illegible] 5th Mch 1855

My dear Father,

I have been following up Northampton-
shire, but this evening a commission has taken me [illegible]
ies to be a pretty heavy one and perhaps even [illegible] my
visits to Irons a little, and I have concluded to wait
until Monday. I have besides some affairs to attend to
here which it is a little better to look after before [illegible]
I can hear from you since Sarah, so I suppose from you
at [illegible] still in no great hurry to have me
home. If I should get [illegible] from you
I will write [illegible]

Remember my love to Higgs, and believe me

Your affectionate Son.

Barry Hall Cornwall.

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135 South Fifth Street, Philadelphia, 10 Mar. 1872.

Prof. Albert R. Leeds,

Stevens Institute,

Hoboken, N. J.

Dear Sir,

I have to acknowledge with many thanks the receipt of your several pamphlets which I am much pleased in reading.

I will please me very much if I could visit Stevens and see you and your institution.

Very truly yours,

Benj. Smith Lyman.

[illegible]

1331 South Tenth Street, Philadelphia, March 20th

Dr. F. V. Hayden,
U. S. Geologist,
Washington.

My dear Doctor:

Many thanks for your favor of the 18th and its enclosures.

I hear you have been getting married, and I congratulate you heartily thereon.

Hoping to see you before long in Philadelphia

Yours very truly,

Benj. Smith Lyman.

135 South Fifth Street, Philadelphia, March 3rd, 1872.

Dear James:

Your letter of the first came duly to hand, and I thought to have answered it by personal. I am very much obliged to you for your kind words about my paper. I will certainly give me pleasure to look out for matters in the newspapers and periodicals, & take, or send, whatever may furnish you material foundation for your literary labors; but I do not think of anything at hand at the moment that would be likely to suit you.

I expect to pass through New York town, home, on my way to Northampton, and, if you are willing to run the same risk as before, should be glad of your company at lunch.

Your affectionate Brother,

Benj. Smith Lyman.

Dear Sir:

Yours truly

Northampton, 12 March, 1872.

Mrs. F. B. Sanborn,

Springfield, Mass.

My dear Madam:

I am ashamed to be in this part of the country with my soul weighed down by the double guilt of having in any measure answered your most welcome letter and of not having given any further information about the Chandlers. This last heavy load I am indeed even now quite unable to remove; but I must lay it entirely to the charge of that most faithful jaundice, if alas not to our laws. That a word has once been from him for two months, and I am forced to conclude either that he is waiting (wholly in vain so far) for some letter from me approving of what he had reported himself as having done and saying to him or else the package has been dispatched by a sailing vessel together with all needful letters about it and nothing is to be by mail. It is to be hoped that this last is the true explanation, for how could I ever get possession of the Chandlers by any expression (or even intimation) of approval of his actions, after such a repulsive letter as that?! It has occurred to me that it is a pity that one of your children is not a girl; the Chandlers might come pretty near to be serviceable for her when she grew up. It may after all be a pity in time for your granddaughters.

I am sick in bed to-night and expect to stay a few days and if possible, go on as far as the Hub before returning to Pittsfield. Please give my love to your husband and believe me

Very affectionately yours,

Northampton, Massachusetts, 12 Nov. 1870

C. E. Ritter Esq.

Dear Ritter,

Your favor of days before yesterday is just at hand, and I am sorry to learn by it that you failed to get the place in the Expedition. I feel sure that you would have been a better man than any of us as they have probably taken.

I came here yesterday, and am sorry not to be in Philadelphia to see you when you go there, but I shall return there in a week or so, I shall probably there before you leave. - After writing to you I saw Whitney and asked if he knew of any Rail Road men whom you wanted in the west. He said he did not. Gen. H. Lamborn, 125 South Fifth Street, Philadelphia, or Johnson & Koenig known connected with the Rio Grande & Denver R. R. (narrow gauge) and may possibly be able to tell you of some young men.

I am sorry you have had the trouble of your journey to New York & so little purpose, but the place was worth trying for, and I thought there was a very good chance of your getting it. Probably Capt. Crosman did not want to have the matter unsettled until the very last moment, and [illegible] chance & arrange to see him with [illegible] to see you.

Yours [illegible]

Northampton, 13 March, 1872.

Dear Hannah:

Your favor of the twelfth came to hand yesterday, for I had arrived here the night before from Philadelphia. I am quite satisfied with you not reading my confession to the Club; I supposed there were many to go that had a lively interest in the matter & justify reading it before the club. I am shocked to see that you and Fanny did not consider all my arguments to mean but as you do not specify which ones I cannot point out their soundness here. I am unspeakably thankful to you for not calling my confession "manly"; it was bad enough for me to [illegible] "so noble" but with me had all "manly" no power on earth should have prevented a calling you "feminine" in return. There was nothing of the club at Mrs. J. S. Clarke's last evening, and no plays were to be acted, and I had an invitation to go from Mr. Kirk, but none from Mrs. J. S. C. I gathered also from your letter and from Fanny that Mrs. J. S. C. was apparently still unconscious of the offense she had made committed; so I thought that as her notions of propriety and mine were so different, it was not worth while for me to [illegible] myself in her way so far as to become in a manner her guest, especially unasked. I might at some future time have a delicate & pleasant point in some article or material to buy, having in mind Mrs. at Northampton, which she would [illegible]

Northampton: 13 March 1872.

Dear Howard:

were cautioned against 'gross breach of confidence.' The — [illegible]
comment of mine was a harmless allusion quite overlook the sa[illegible]
part of my article (the birds) and proceed to use [illegible]
language wholly unbecoming a lady. The "charitable construc[illegible]
which you say my behavior has not been regarded is very [illegible]
plausible; still I rather should have opportunity to be charitably [illegible]
misbehavior was wholly accidental. Though you do assure [illegible]
of the advice of Miss Powell's intelligent friend I have yet [illegible]
seen that he overrated her good sense in the least. No [illegible]
better illustration of the truth of Webster's remarks could [illegible]
needed than the letter of J. S. C.

I saw Aunt Susan and Mary Sunday evening last and found that all the home folks were well. Aunt Susan had been at at Emily's a day or two before and found her in a very sad plight indeed. She had not been well before last from exhaustion after long confinement, and despite a little nurse from the same cause. Her discomfort is painful even to think of. Rufus was a good nurse, and he was left still with her to take care of the children. Jo was at his office again on Monday after which they have been very kind & hindered. Mary Lesley has been quite habituated to work at the library of the Philosophical Society and I have every morning going on with the catalogue. A new clerk has been bought which is a magnificent piece of intellect, and it is at present devoted to the use.

Please give my love to Cousin Joe and Cousin Jane, when you see them next and believe me—

Ever affectionately yours.

Benj: Peirce

Northampton, Mass; 13 March, 1872.

Mrs. Susan B. Lyman,
Jamaica Plain.

My beloved friend:

Here I am again on a visit being arrived night before last from Philadelphia.

I have thought that this time I might perhaps get so east as Boston, and if perfectly convenient to you spend a day or two at your house. It is uncertain yet when I can leave here, but probably by the beginning of next week.

I find all well here. Mrs is still quite [illegible] building at new house. The contract is probable [illegible] into force within a few days, and then I think [illegible] mind will be somewhat more at ease.

Please give my love to all, and believe me

Your affectionate friend

Benj. Smith Lyman

Northampton, Mass., 13 March, 1872.

My dear Poole:

Your very welcome favor of the 4th inst. came to hand just as I was leaving Philadelphia, before yesterday. It was found in fact too late for me to send you (now that I know your address) a valley engineering and Mining Journals that [illegible] for you at my office table. By my connection with the American Institute of Mining Engineers I receive a copy of that paper, but am already a subscriber, so I have a spare copy to send you & help keep you posted as to what is going on. This Institute held a meeting the week day at Philadelphia and we all enjoyed it very much. The papers read before the meeting are to be printed in the Engineering & Mining Journal, they are very valuable & the pleasure of sending you the last day a paper on Copper & Lead Ores before the Philosophical Society with the news of your success in making cast steel. Hunt's & Lalor's [illegible] did not get it to me in time and I will send another copy, so I have a plenty to spare. I expect from time to time a few more papers of mine, if not several, so you see I am feeding you with fine print (advertising) at a great rate.

I am very much interested in all you write about your new experiments, and am very glad that you have found so little difficulty in getting some one to take, and that you will soon be well before a favorable breeze. Mr. Hawkins came up to see me a little [illegible] days since & left with me a [illegible] Journal [illegible] a letter to Mr. R. Black as [illegible] and [illegible]

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[illegible] you to be on the lookout for specimens of [illegible] [illegible] in Philadelphia, and I commend it with my [illegible] there. He inquired particularly after you, as Mr. [illegible] [illegible] from time to time. Mr. Lesley, too will be much pleased to hear of you.

I imagined you as hobnobbing with the Japanese embassy [illegible] their visit at Salt Lake City and thought you might be coming on to Washington with them. What a pity they haven't the good sense to put us at the head of a geological [illegible] [illegible] their fascinating country! An expedition sailed lately from New York for Nicaragua to survey for a ship canal [illegible] United States Navy. They wanted a geologist and [illegible] [illegible] and offered me the magnificent salary of $[illegible] [illegible] year, or if I would do two men's work by running a canal [illegible] they would even give $150 a month! Yellow fever and cholera [illegible]. I had you in mind in case you were out of work, [illegible] there was not time to communicate with you. I had such [illegible] [illegible] to see [illegible] they that I wanted to go very much, if the pay could have been a little more decent. I recommended a young German [illegible] Wilkesbarre and telegraphed him about [illegible] [illegible] word. [illegible] to New York and after waiting an [illegible] [illegible] finally saw the commander of the [illegible] about ten minutes before the time of sailing, and found that a professor in a [illegible] College had been engaged for the place. The German['s] name is Rieben, and he is from Freiberg, ex[illegible] [illegible] in mining and has [illegible] [illegible] [illegible] there. He has been about four years in America, and [illegible] [illegible] Wilkesbarre [illegible] [illegible] [illegible] surveying and any Division Engineer [illegible] [illegible] finished. [illegible] [illegible] [illegible] going [illegible] [illegible] [illegible] [illegible]

Northampton, Mass; 13 March, 1857

My dear Mr. Lesley:

I left with Mr. Brien as I came [illegible]
Poole the map that goes with the paper I offered the [illegible]
[illegible] Philosophical Society; but gave him no order [illegible]
[illegible] photographer electrotype it. I left it with him merely to have
it ready upon it in case the publication should be ordered
on Friday; so that he might begin his work without waiting
my return to Philadelphia. I told him of the amount
in regard to its being ordered; but he said the cost would be
a "little" that the order would probably be given. Meantime he
keeps the original in his safe. The map is about 8 inches by 9
or forty square inches, less than half the surface of which
was that cost $36; and I reckon the cost of the plate will not
exceed from fifteen or twenty dollars.

As I left the city I had a letter from young Poole dated
"U. S. M. Co. Brigham Canon, Utah, 25 Feb." He is managing
mine for some English capitalists for $150 a month and says
the mine does not turn however to be so promising as he thought
it at first. He seems to be well and in good spirits.

My friend Riddle, the German [illegible] was recommended for the Nicaragua Expedition, went to Washington
the day [illegible] of my telegram, and after waiting several days
for the Secretary of War Crossman ten minutes before he [illegible]
[illegible] heard that a person had been already engaged for the
[illegible] appointment. Mr. Riddle is now in the city of New York
[illegible] and [illegible] the [illegible] instead of [illegible]
[illegible] [illegible] [illegible] [illegible]

Northampton, Massachusetts, 13 mars 1871.

Mon cher Gaudet:

J'ai dû il y a bien longtemps vous remercier de votre bonne lettre du 12 juillet. Il m'a fait bien plaisir d'apprendre que vous étiez sain et sauf après l'année affreuse que vous avez eue, et que toute votre aimable famille était aussi échappée aux périls de la guerre. Je comprends bien l'opinion générale que France n'est pas encore prête pour la république à cause de l'ignorance générale du peuple et que la monarchie est surtout le gouvernement de l'ordre; mais j'espère pourtant que la république actuelle durera assez longtemps pour l'éducation du peuple et qu'on pourra améliorer le gouvernement de temps en temps sans révolution. La république paraît être le gouvernement de l'avenir et si on établit encore une monarchie il faudra aussi tôt ou tard une révolution pour établir la république définitive. Il me paraît alors que la république est déjà plutôt le gouvernement de l'ordre.

J'étais aussi très-content d'entendre que l'école des mines et ses collections ont été si peu endommagées. Du reste j'ai vu plus tard le bulletin de la société géologique pour les séances de l'hiver 1870-71 où on a raconté la chute des dempses sur l'école. Je vois aussi dans le bulletin qu'on s'est occupé de la mer de Flandre il y a plus d'un an. J'ai envoyé il y a huit ou dix mois un exemplaire de mon rapport sur les gîtes métallifères du Pendjab à la bibliothèque de la société; et un autre exemplaire à la bibliothèque de l'école des mines. Comme il n'y a pas beaucoup d'exemplaires et pour cela je ne sais pas encore. Il y a peu de jours j'ai vous en envoyé cependant un petit mémoire sur le même objet à peu près avec une carte nouvelle qui a été publié récemment.

J'étais de vous écrire à Singapore, je suis arrivé en dix jours à Hong-Kong où j'ai passé une couple de jours. J'ai visité Macao et

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nuit, trop peu de temps puisque la ville est intéressante. J'ai passé neuf jours à Canton, ville bien grande et pleine d'intérêt, avec un nombre énorme de jolies boutiques bien élégantes, mais avec moins d'autres villes chinoises avec fort peu de beaux édifices et monuments. Quelques temples sont assez jolis mais bâtis tout en bois. J'ai fait un tour en steamer à Fou-chow en m'arrêtant en route pendant huit heures à Hong-kong et Amoy, deux grandes villes sur la côte. A Fou-chow j'ai resté six jours et j'ai vu une ancienne ville même mais cependant j'ai un peu de la culture dans un couvent bouddhistique. De Fou-chow un autre steamer à Shanghai, où j'ai passé cinq jours en attendant le steamer pour le Japon. Il n'y a pas beaucoup à voir à Shanghai, mais j'étais content de me familiariser encore un peu avec les villes chinoises et le peuple. De Shanghai je suis allé par un steamer américain en trois jours à Nagasaki. Nous avons resté un jour et demi et j'ai bien profité de ce jour pour voir cet endroit et le peuple japonais si étrange et intéressant. Les Chinois m'ont paru à quelques égards bien moins que les allemands, tandis que les japonais ressemblent plus au peuple français avec leur esprit vif. Le steamer a traversé la belle mer intérieure du Japon, où il est arrêté pour un jour et demi à Kobé et Hiogo, le port d'Osaka. Je suis allé de Kobé par steamer à Osaka, ai parcouru la ville le matin, et suis revenu à pied à Kobé, à peu près neuf lieues. Enfin le steamer est arrivé à Yokohama, et il m'a fallu partir dans deux jours et demi pour la Californie par un autre steamer plus grand de la même ligne. Je suis allé quatre ou cinq lieues à Yédo pour y passer vingt-quatre heures. Le voyage jusque ici était de vingt-deux jours, assez tranquille, une belle traversée de la mer [illegible] j'ai passé une [illegible] jours à la ville et mes environs. Mais avant [illegible] je visite Yédo, [illegible] à la [illegible] pour [illegible]

l'agrément. Mais il leur avait été assez difficile de trouver du travail. J'ai passé aussi une quinzaine de jours en visitant pour la première fois la célèbre vallée de Yosemite avec ses rochers grandioses et ses chutes d'eau très belles et hautes, jusqu'à 2600 pieds, aussi les grands arbres, certains pieds de diamètre et 300 pieds de haut. Encore je me suis arrêté un jour à la ville du Grand Lac Salé et un jour à Chicago. Enfin je suis arrivé sans hâte au 6 Juin à Philadelphie; et j'ai trouvé qu'on m'attendait impatiemment depuis une trentaine de jours, espérant de me renvoyer bientôt au Japon pour faire des recherches géologiques dans l'île de Yesso pour le gouvernement japonais. Mais on n'a pas pu m'offrir un salaire aussi bon qu'on avait fait dans l'autre fois, et je n'ai pas beaucoup d'envie de m'exiler encore une fois si loin, et j'ai décliné la proposition. A Philadelphie j'ai trouvé aussi une lettre du gouvernement du Canada au gouvernement de l'Inde [illegible] ce dernier à cause de mon travail et rapport.

Depuis lors j'ai [illegible] en voyage et très peu de temps [illegible] à la Société de mon pays. Elle est devenue un peu malade presque immédiatement après mon retour, mais d'abord cela a paru être peu de chose. Elle a eu la malaria à peu d'exemplaires de temps en temps, et je suis venu plusieurs fois de la Philadelphie. Enfin vers la fin d'octobre on a découvert que la cause de la maladie était un cancer dans l'oesophage, qui a fini par l'empêcher tout à fait d'avaler. Après une vingtaine de jours qu'elle n'a rien avalé elle est morte le neuf novembre. Elle avait 72 ans. La maladie était très pénible et très longue et surtout vers la fin. Depuis lors j'ai été encore à Boston trois jours pendant huit ou dix jours. Mon père reste ici avec ma [illegible] mariée. Il a été depuis octobre à Berlin (Prusse). Je suis ici maintenant pendant un mois et il faut toujours m'adresser à Philadelphie.

J'ai été très [illegible] de voir un de vos amis et même par lettre avec même en Amérique; et j'espérais toujours que votre [illegible] serait employé par la ligne transatlantique. J'ai parlé de lui à notre ami Cope et il m'a dit qu'il se souviendrait de votre ami dans la [illegible] de cuivre et quelqu'un très habile dans la métallurgie; mais je ne crois pas qu'il ait trouvé quelque place jusqu'ici.

J'ai vu Cope plusieurs fois dernièrement à [illegible] à Philadelphie [illegible] Société d'Ingénieurs de mines de l'Amérique que lui et Rothwell ont fondée [illegible] il y a près d'un an avant mon retour de [illegible] Elle est déjà très grande et tient ses séances [illegible] à Philadelphie. J'ai vu Rothwell [illegible] pour la première fois [illegible]

Je regrette infiniment que les [illegible] aient été [illegible] [illegible] [illegible] [illegible]

Wm. Atkinson Esq. Calcutta.

Northampton, Massachusetts, 14th. 1864.

My dear Atkinson:

Your very welcome favor of the twenty eighth of November came duly to hand. I am immensely obliged to you for all trouble you have been taking in my behalf. The pencil has been going and Hudson more trouble about those shudders than I intended, and was mortified to find K.E.K. and Wm. Hudson all the way up to the Cape on the Chase of the things there. I meant to have the pencil do all the buying himself merely telling you on the things before sending them, & then there was no misunderstanding. He is very dilatory & would be about sending them or particular matter in getting them aboard, and I did not like having them here to wear this winter as I hoped, & they will have to wait for another year. The pencil kept quite as the one is about finishing away. The package may however be on its way now by sailing vessel, but I have heard nothing of it.

The poor Lord Mayo has been assassinated. It was a startling news, and must have made a great sensation in Calcutta. He was a fine man & he you speak of must have come to a sudden end. I am sorry that Lord Napier got leaden was not made Governor Genl. permanently; for according to what I heard of him in India he was a very well suited for the post. As I understand am temporarily appointed he was made Governor General temporarily, but it was for the other Lord Napier, the Commander in Chief — My friendly [illegible] coming, fear and trembling you and to bill of pecking to pay the subscription is [illegible]. I sent you the other day a copy of a pamphlet of mine just printed the Punjab oil region with a map, and hope it reached you safely. The map was more successfully printed than those were in India, and I wish they had been as well done.

I am here only on a visit for few days & my father, and Mary Adams is still 18 South Fifth Street, Philadelphia. Indeed I have been a week or two days every month for some time past, & I have kept on the move pretty constantly, and have but little to write home. You too seem to be moving back and forth between your office and Calcutta pretty [illegible], and no doubt find the hot and cold pretty inconvenient as I do the steam cold. His about as [illegible] you are [illegible] Northampton [illegible] forward to you & only [illegible]

Northampton; 14 March, 1872.

My dear Lanborn:

Many thanks for your favor of yesterday & proposal you make that I should spend tomorrow night with you and keep company with you & Boston is so fascinating that I think I will carry it out, and see you therefore tomorrow afternoon, towards six o'clock. I was not looking for any notice of my paper in the Republican, and did not hear until last night that there was one, and forgot to look it up this morning until your note came. I am very much obliged, for there is nothing like advertising and for your notice of Dr. Prime's book although I notice one or two more taken no doubt from his book, for I have noticed them already in newspaper extracts of the book, so many indeed [illegible] however reasonable. Baber must have done his share of founding the Mogul Empire somewhat before the time of Queen Elizabeth's grandson Akbar ruled (1556–1605) at just about the same time as the Taj. The Taj was not built in memory of Noor Mahal but of Arjemand; this is, however, a common mistake. Jehangeer does not himself in it but his son Shahjahan with his wife. Dr. Prime has been preceded in his description of the Taj by at least two American writers, Bayard Taylor and Mr. Fergusson. Taylor too is not quite correct in the details he gives of building, though it reads just as well as if it were. (If it is not true it is well invented.)

I should be glad to write a magazine article as you suggest but hardly know what to write about in regard to my geological observations that has not already been made public. I am meditating to-day and last night a paper on observations I made [illegible] to read before the Field and Forest Club here next Tuesday evening and the plan. One objection to reading one's paper before the Club afterwards for publication in some leading magazine is that [illegible] I should think and write for it in mind.

Very affectionately yours, Benj. [illegible]

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Northampton, 14 March, 1872

My dear Mrs. Sanborn:

Your telegraphy of the word Shudders makes me shudder. Of course I shall telegraph immediately Ken arrives, and have been writing to Calcutta about Ken today in hopes of being able to announce him coming soon.

It would give me the greatest pleasure to buy [illegible] in Nicaragua all the peculiar products and curiosities of that quarter of the world including the magnificent opals of Honduras and the gold mines of [illegible]. All that is needed is that somebody should furnish me a hundred and fifty dollars a month, which was all the New Navy could afford to offer me for two years' work, for getting alone the magnificent sum of $1750 a year was offered to [illegible] expedition. Said without me last letter from New York. We must trust to better luck another time.

Meanwhile, hoping to see you tomorrow evening, I am ever yours,

My dear Madam

Your affectionate friend

Northampton, Massachusetts, 14 March, 69

Address always 125 South Eighth Street, Philadelphia.

My dear Pundit;

Your very welcome favor of the twenty-first of November last came duly to hand, & well do I feel you had so kindly written before that and that I have so ungratefully kept you waiting. I thought indeed that I should within a few days after receiving your last receive also the package of seeds or at least a letter saying that they had been sent; and so waited from day to day & week to week in hopes of answering all at once. But alas my seeds are still waiting impatiently for their deliverer who very fondly hoped to make a great display this winter, and the signature is wearing away and before the package comes now she will have to keep her vanity in subjection until another spring. I feel really profoundly grateful to you for all the trouble you have taken. I was very sorry to hear that instead of helping the thing yourself Mr. Hudson had to travel 40 miles out of his way to get them after all. He and Mr. Hutchinson me may thank for it not for that reason take down the [illegible] you have

I am well pleased with your account of what you had bought and the prices, if the shrubbery were indeed of the best quality. Only the kindness of your daughter led you I fear into the mistake of not keeping what I directed you to keep for your trouble. In the matter of the seeds and bulbs too you spent even more than I instructed you to do & put me in your debt instead of letting me have something in your hands as I wished & You have sent about ten times as many kinds of seeds as I wanted already; so do not send any more, please. I have no garden of my own I have turned over the whole of them to a botanical friend of mine at Philadelphia who [illegible] glad to get them for experiment & cultivation. You were also too [illegible] liberal than I desired in regard to the number of bulbs you sent; but they will all turn out useful I trust. As it takes so long to write back and forth and is especially so [illegible] to find money & [illegible] ting, it would perhaps be best [illegible] me to follow pretty [illegible] by the [illegible] you [illegible] opinion, so much [illegible] & the price [illegible] to. I am really [illegible]

have been taking for me about all these things, and now
Dear Osborne that I shall ever be able to repay you for it.
I feel also greatly obliged to Natalya Babin for all that she has done
for me and tell her you will tell her so. I was very glad to see in
the Friend of India a notice of his account of [illegible] Boyes. Thank
Durgachurn Babin very much for the copy he sent me of this No.
of it, and if you have any money of mine in your hands pay him
the price of the copy. Otherwise I will send the money from. Indeed
I am putting that copy in a book for sale. I decided to buy it myself
since a friend like Mr. R. W. Thorburn of Springfield near the place and
saw an advertisement of the book in the my Friend of India as for sale
at three rupees. Mr. Thorburn is editor of a newspaper, and is a use-
ful writer and reviewer of books, so I wished the book to be reviewed
by him rather than by myself. He very willingly undertook the
task, and on looking into the book became much interested and
pleased. I have sent both you and Durgachurn Babin copies of the pa-
per containing his notice. The paper is an influential one. He said
to that he would show it to Mr. R. W. Emerson our great writer a
personal friend of ours, and to one or two other friends interested
in such matters. And would then send it to St. Louis in Missouri
to a Mr. Harris who edits a metaphysical journal there, and he
will probably make another notice of it in his periodical. Never-
theless no application has yet been made to me for any of the
copies of it. Mr. Thorburn suggested the idea of having the book
reprinted here in America by some publisher at the publisher's
risk. That would not bring anything to Durgachurn in my
pocket; but he is to be rich already I need that. Still, it would spread
his reputation here and make him friends whenever
he comes to America. Please ask him if he has any objection
to that course, and then we can propose to some publisher to
publish. Of course the comparatively high price of the Calcutta edi-
tion and the great length of time needed for getting it after giving an
order it will be a great hindrance to any sale here.

I am much grieved to learn by your last letter that
dear Sophie was so ill, and sincerely hope that
you. I know now in a manner better than formerly how to sympathize

with [illegible] a long time since I wrote you last my [illegible] I
I write you this sad announcement of sickness & death and we suppose
[illegible] letter; but our hopes proved false and she became worse
until we could do nothing else for her. A consultation of
Physicians showed that the cause of the trouble was a cancer in
the oesophagus an incurable ailment. After [illegible] more
or less lingering weakness and pain she finally was released from
[illegible] early on the morning of the 7th of November. Her sickness [illegible]
[illegible] long visits here, and since last March I have [illegible] been
here eight or ten days in every month visiting [illegible] father
and elder sister who are now here alone. My younger brother
has now been nearly a year in Europe and has been spending
[illegible] time in Berlin, Prussia. My brother is living in Pe-
[illegible] where he is a lawyer.

It is owing in great part to this almost constant travelling
about on my part that I have so long neglected writing to you.
I have also been in [illegible] expectation of having a communi-
cation from the receipt either of the Chaldees or at least of a letter
saying that they had been sent. The package of bottles and
seeds came safely to hand in December by the [illegible] and
and the Captain refused to take any pay whatever for his
trouble, a piece of complaisance that [illegible]
Custom. The custom house officers however did not relish
[illegible] Sunday fees although there was no duty [illegible]
[illegible] obliged to you and to Prof. Asa Gray for your kindness
[illegible] but it is perhaps hardly worth while for [illegible]
to collect and send more plants as you propose. I have
plants in use at Calcutta, but I suppose there are
[illegible] Peninsula also the Kuka, I think. I have
[illegible] of Indian objects, but have very little of
[illegible] to spare for such bulky ones as the plants.
[illegible] when the articles you have undertaken to
[illegible] I shall take great pleasure in [illegible]
[illegible] Magazine, and in remitting you what [illegible]
[illegible] have to you [illegible]
[illegible]

Northampton, 15 March 1872.

Dear Mary:

I received your favor of the 28th of January some days after it was written, and was very welcome and should have been answered earlier, but I feared it when I was alarmed with the fear that you were sick. All you say about your prospects is interesting. I am sorry that I missed seeing Miss de Chaumes in Berlin; but glad that you have found so much pleasure in Miss Hirschfeldt's society. Give my respects to her when you see her. I made her acquaintance at one meeting of the German Club at Mrs. Caroline Earle White's. This [illegible] Mrs. White's is not such a French Club, but a much smaller one and more [illegible] and I was made more at home, although the same [illegible] happened to be so [illegible] as I have found [illegible] friends from coming. The first meeting was delayed [illegible] weeks after the time [illegible] arranged, by a slight attack of [illegible] which kept me in Troy for three or four days. He lives [illegible] with Mrs. White and as she is [illegible] the youngest Miss Gibbons. Miss Walden & Miss Hoyt's [illegible] School is now very flourishing as they have [illegible] the reputation of [illegible] School originally at [illegible] Miss Buffum is to go to Europe very soon for a [illegible] and you may possibly come across her [illegible] Miss of Mrs. White's cousins is Miss Earle who [illegible] at the head of the Germania Club, but has been [illegible] to write with Mr. Earle's reputation and [illegible] some years. Helen [illegible] first time you [illegible] and I am glad. It is a [illegible] by the labors in [illegible]

rend maiden lady, middle age named Chabot, who has
read to me through Mrs. White that she would be glad to have
all on her, which would give me a chance to practice French
little. I had made so favorable impression partly by
waiting on her home at the end of the meeting where I was
in. Think of taking advantage of her invitation for
benefit of my tongue on my return to Philadelphia. Leave
Wed Monday from Philadelphia, and arriving
joined Mr. after noon & spend the night at Sanborn's and
go with him to Boston early tomorrow morning, & time
day with him at the Bird Club, the political club that dines
Tuesdays at Young's Hotel under the presidency
Mr. F. W. Bird when he is at home, and the meetings
which have an address delivered. Political and literary
leaders are commonly present. I dined with them once before
at September, and Gen'l Butler at opposite end and Sanborn.
was but three days after Butler had opened his campaign for
Governorship for State Governor by a speech at Springfield in which
he had shamefully abused Sanborn with all kinds of lies and
insults and had insulted all leading politicians in like manner.
What his presence at this dinner was not welcome although
invited. Butler was defeated thoroughly in the campaign
has never since been at the club. Expect to spend Sunday
at Sanborn's, and have a letter from Anna Dawes Lyman
this morning. He says that Miss Claffin has just lost her
sister Mrs. Moore by consumption at Newington and
Mrs. Moore and is expected home from there tomorrow. Lucy
Anna Dawes Lyman is pretty well this winter in spite of her
more weak lungs on which [illegible] but was laid
for days a week or two ago. Emily has been at [illegible]

[illegible] for from under part and will never be able
Carpet again. Mrs Jipps very much be sorry with her children
and husband and mother and dear for a couple of weeks,
at any [illegible] rate; but is in a terrible condition. Mr
[illegible] Wilde has swollen up Glands on the side of groin
groin that has gone on for six weeks discharging ulcers, and the
[illegible] from time to time serious hemorrhages that leave her
[illegible] greatly. She suffers immensely from pain and is
[illegible] relieved by opiates and other medicines. She
[illegible] stop at from electric treatment but does no
[illegible] Cancer. She has both ovaries or ovarial at one time and I believe
has [illegible] still [illegible] and then. This enormous swelling is growing
[illegible] and when it gets so far her state will be almost
[illegible] quite unendurable; for she cannot lie on the swelled part
[illegible] part from and will be unable to lie in bed at all. Mrs
[illegible] great anxiety of this [illegible] moment. She has [illegible] for
[illegible] since last July, as the said Lady & Aunt have, and has
[illegible] almost quite broken. Until a few weeks ago the [illegible]
[illegible] hopeful. Of late after great watchfulness from day
[illegible] has slept a little from sheer exhaustion. Jo's health [illegible]
[illegible] very bad of late, for he pile-bite down often [illegible], came
down again and he realized [illegible] first time how real [illegible]
He now [illegible] that he had to leave her a while and go
[illegible] of Newcastle, Delaware, and only come back at
[illegible]

Northampton, 15 March, 1872.

Miss S. Lyman, Jamaica Plain.

My dear Aunt:

Many thanks for your favor of yesterday and its invitation. I shall be happy to spend Sunday and Monday at your house; but have partly agreed to be here on Tuesday evening to read a paper before the Odd and End club, though I hardly see how I can prepare it so soon. I am going this afternoon to Springfield and with Mr. Dunbar early tomorrow to Boston, to dine at the Bird Club tomorrow afternoon, and will be at your house probably before dark.

I am very sorry indeed to hear of Ellen's illness.

I am very glad that Eva has met with my excellent friend Miss Alice Jackson, one of the best and most agreeable ladies that I ever met; likewise one of the most sensible and most learned. She is a daughter of Dr. Charles T. Jackson of Boston. When I first knew her at Concord she was older than the rest of us, but I think about my own age, and was there only for a few days during Easter. She is also a fine Latin scholar. I have not only been to Concord and Boston eight years ago in San Francisco, but I have [illegible] your tomorrow [illegible]

Northampton, Mass, October, 1872.

Rev. Edward Eggleston

Scranton, Pa.

Dear Sir:

Your esteemed favor of day before yesterday
is to hand. I never had the pleasure of meeting
you both in India as I was a considerable distance from
that great country, but I saw his name from time to time
in the newspapers. His work must be very severe on
so hot and dry a region.

By an odd coincidence there is now in the house
a young person whom I am visiting for a few days a servant
girl named Margaret Corrigan who was living in
the family of people in the native region in Ireland in
which your story is laid. She told me when I
[illegible], that I knew already by your book
[illegible] you had after you left India, confirmed
[illegible] experience with your pen by [illegible]
[illegible] has been here about a year and I [illegible]
[illegible] very attentive to her.

[illegible] are sometimes in Philadelphia [illegible]
[illegible] you at any time, [illegible]
[illegible] mountain air

Very truly yours

Rev. Edward Eggleston

Northampton, Mass, 26 March 1872.

Dear Miss Stilwell,

I owe you my best thanks for your kind words of your letter that reached me safely last week and am sorry that it should have come to late for me to accept your invitation to dine & to tea with you. I have long been hoping to get out to see you & your home, but something has always interfered to stop me from going. The last fall I was away from home all October and more since that I have spent a week in Boston & every month then, & have been a little quiet for me at home in which I could write. Since I came back from Indiana I have not been out to any meeting from Salem. It is so difficult for me to keep warm, & there have been so many storms. But it is a step beyond that I can walk a little greater distance from meeting. Mrs Whitehead last week Monday, came here for a few days, then went to Boston and got back here on Wednesday of this week, and left for Philadelphia by Friday or Saturday. I shall be very glad of any opportunity of seeing you & hope you may be able to spend a few days with us always

Very truly yours.
G. B. Lincoln

Northampton, Mass. Nov. 1872.

My Richard:

Your father & I arrived here safely
& found all well, as I have hoped since I wrote
you last.

I am very glad to learn that you are studying
with a diligent[illegible], & that you are getting
a good grasp.

I send you the enclosed with the hope that
the Pamphlet will interest you, & also that
you will be able to read it. I learn with
great pleasure that you may have proved your
self worthy of the [illegible] before receiving the
[illegible]

[illegible] Philadelphia with the [illegible]

Yours very truly

Benj. Smith Lyman.

Northampton, Mass; 21 March, 1

My dear Koenig:

Your kind note of day before yesterday
invited me here today, and I am very sorry to have
to state, on receiving your last evening and of going
to you as you proposed to N. Lecture. I had heard of
a series of lectures that you were to and had planned
with my friend Dwight to be in Philadelphia in time for
my Lecture, Thursday, but since I came here
they began. It is now some ten days since I came here
to see my father and sister, and I expect now to go back
to Philadelphia within two or three days. I spent last Sunday
and Monday near Boston. I am very glad to hear you
read so highly of the new opera "die Nibelungen" and look
for great pleasure in reading it some day. The Nibelungen
lied gave me great enjoyment a few years ago when I read it.
Hoping to see you again before long and that you
will give my best regards to your wife, I remain

Very truly yours.

Benj. Smith Lyman

Northampton, Ms., 21 March 1872

My dear Ambrose:

I send you herewith a number of old Indian postage stamps for Tommy and Vicky.

On my return here Tuesday I found myself in great demand from members of the Oldland [illegible] Club. Although I had held out no encouragement as to my reading a paper, yet great hopes on that point and [illegible] seemed to have been entertained, especially by those who had been asked out as writers for that evening. They and the [illegible] committee finally carried the matter so far that I read them some extracts about Calidas and the Hindoo drama and lengthy extracts from Sacontala, until they were pretty tired, but, I fancy, had got a settled impression that Kalidas was some pumpkins and that fine plays were written before our day and a good ways from our country. Also by request I showed my book of Indian photographs with some explanations. Before the meeting I met [illegible] J. S. C. in the door yard of my Cousin's house and was shaking hands with my opponent almost before I knew it. He has seemed determined to bury the hatchet thoroughly, and we met twice yesterday by chance, once when he could have easily avoided a meeting. Under such circumstances of course I look as charitably as I can upon [illegible]

[illegible] I am on the track of a mud [illegible] for [illegible] with, but cannot learn the price [illegible] [illegible] [illegible] [illegible]

Northampton, Mass., 22 March, 18[illegible]

[illegible]

The name of the firm Ratzell & Co. mentioned
in that I spoke of yesterday as used and very much liked by
[illegible] in this town is: Williams & Stone, 37 Main
st. Hartford, Opera House Block. The trumpet of which I
am still somewhat fond, in this case a little more than a good
[illegible] of sound. As the place is to me of [illegible]
[illegible] it might be worth while for Miss Leavitt to
[illegible] before buying it; perhaps it would be worth
[illegible] & go there with you & one of the dumpets.
[illegible] obtained them is the
[illegible] from an unwilling person & I have also
[illegible] but in every case I have found [illegible]
[illegible] different entirely after [illegible] of the
[illegible] used. In one case [illegible]
[illegible] after they left me & [illegible]
[illegible] entirely convinced in both cases. The last
[illegible] trumpet, says the finish & bell [illegible]
[illegible] but it is [illegible]
[illegible] three days from the [illegible]
[illegible] good [illegible]

[illegible]

135 South Eight Street, Philadelphia, April 6th,

Dear Mother,

I have found Edward a most gentlemanly fellow and found him in good health and spirits. He said he should probably telegraph or write you that he would be with you next Saturday on his way home from [illegible] but that he would phone to you. He said they would all like to [illegible] Aunt Kate Adams and Carey were to [illegible] Thursday night, and that Frank [illegible] for two weeks longer having a few days left. [illegible] and that he and Jo were well. [illegible] reached midnight and yesterday at the latest [illegible] next morning I waited at Aunt Lizzie's and found pretty much all I wanted. After [illegible] at his office and found him well [illegible] spirits. He showed me a number of the Ledger which he had that day received and in which he had written. He has written some half a dozen [illegible] Some juridical. — I called also on Kirkland [illegible] on him for the first time since last summer. He is a [illegible] son of Joseph Lyman, named Frank Kirkland, [illegible] building with James and on the same floor. He [illegible] four o'clock train for Philadelphia and arrived safely at [illegible] o'clock standard time. Afternoon I called [illegible] and found them all well. Emily is more comfortable than [illegible] past two days. He seems very cheerful. Before [illegible] Edward [illegible] the room of [illegible] and [illegible] began [illegible]

# The Gradienter.

To Editor of Van Nostrand's Engineering Magazine.

Sir:

Having seen in the last number of your excellent magazine a very favorable account of the gradienter and [illegible] I beg to point out what seem to me the defects of the method as compared with common [illegible] leveling.

In the first place the "percentage screw" the main [illegible] instrument, is liable to wear so that after [illegible] it can be turned a notable amount without [illegible] the telescope, and so leads to error. [illegible]

In the next place the friction and weight of the [illegible] and its axis give as much resistance to the [illegible] screw as to strain it more or less and tend [illegible] to cause the readings slightly inexact.

The error from these two sources might very well amount to so small a quantity as half a [illegible] of arc or even a whole minute; and it is not therefore surprising that even "in testing the [illegible] framework which it must have been comparatively new," [illegible] at 500 feet the elevations as determined by the gradienter would sometimes though "seldom" differ [illegible] from true levels. In transiting [illegible] circles one of the sides of the index [illegible]

[illegible] three inches the vernier marks single minutes and it is very easy to read to half a minute. Half a minute of vertical arc at a distance of 500 feet is at most just nine tenths of an inch. As the truth cannot be more than half way from the nearest possible reading to the next, not more, that is, than a quarter of a minute from a true reading, the greatest possible error from the circle is less than half an inch of level in a distance of one hundred feet. It is clear then that the [illegible] circle is much more exact than the [illegible] vertical circle is also used far more easily. It is claimed that the gradienter measuring of heights of forty or fifty feet above the level, at a distance of 500 feet would be a vertical angle of forty five minutes; while we have just seen that the circle can be used without lessening its exactness any arc. Indeed the increase of the number of angles is so regular even up to forty five that graduations could be made, if desired, to read direct with a vernier the height for a distance of feet, and the number of feet above or below level could then be got by multiplication, as in using the gradienter. But it is perhaps more convenient to read the sine of the vertical angle to the nearest tenth, and to find the height by [illegible] distance and sine. The [illegible] circle requires no [illegible]

must at each station answering to the adjustment
to zero of the percentage scale to the zero of the scale
in the case of one source of error, but is not
important.

With the vertical circle, too, the telescope can just
as well be sighted at a target always of one height
as about that of the telescope; and then there is no need
the many additions and subtractions that are described
for the most convenient use of the percentage scale, and
that lead to confusion and mistake.

By this the gradienter is convenient and as
how much more as must the common vertical circle, the
It is another [illegible] for obtaining the [illegible] and [illegible] that must be [illegible]
not to make the percentage scale and not the [illegible] [illegible].

Perhaps the commonest source of error in using
the vertical circle is gross misreading, especially reading
in the wrong way from a numbered graduation; for example
from the zeros
reading twelve degrees instead of eight, when ten is marked.
Such mistakes come of course from having the graduation
numbering
marked in one direction for a rising angle and
the other way for a falling one, and they can be
done away with by having a continuous
[illegible] angles, so that the reading should always be
[illegible] For instance, let the reading
[illegible] zeros; for ten degrees rise, 350 degrees; and, for
degrees fall, ten degrees; or take the numbers either
[illegible] degrees. The lines of the angles would be the same
the common graduation; and no [illegible]

mark, called a needle, of that which the light of a min-
ute long one. This is the same motive [illegible] for the
[illegible] continuous graduation from zero to 360°. The
main plate and compass ring, and it is well arranged
as in the protractor. Having the numbers run differ-
ent ways in different quadrants is a most fruitful
source of error.

The use of the stadia as described with the
dienter is doubtless a great saving of labor and
and even a great gain in exactness over
taining. But instead of having a rod
ready for the stadia wires it is much
ient to have the wires adjustable by the
adjusted by the maker so that they cut off
a rod at a hundred feet away, and the
an be read direct from a level rod (marked
et and hundredths) with the same sight as
el or for the vertical angle. The eye piece
transit of Messrs. Keller & Brightly of
This is remarkably well suited from its flatness
by field for stadia measurement.

Yours Truly, Benj. Smith Lyman.
1 South Fifth Street, Philadelphia,
26 March, 1872.

135 South Fifth Street, Philadelphia, 26 March, 1872.

To the Editor of Van Nostrand's Engineering Magazine.

Dear Sir,

I take the liberty of sending you herewith for insertion, if you like, a letter on the gradienter, suggested by an article in your March number, which I did not see until yesterday, owing to absence from home.

I send also a couple of pamphlets of mine as a kind introduction to your acquaintance, &c.

Very respectfully yours.

Benj. Smith Lyman.

135 South Fifth Street, Philadelphia, [illegible]

Coal Dealer,
Willow Street, above Broad.

Dear Sir:

Please send at your earliest convenience
[illegible] morning half a ton of Lorberry Coal egg
size, and Oblige

Yours truly,
Benj. Smith Lyman.

135 South Fifth Street, Philadelphia, 28th [illegible]

Dear James:

Will you please send me some of
those cards you have of my paper on Telescopic Measurement in Surveying, at least one or two of them. Have
a dozen, directed per Messenger still, and if
you [illegible] another print.

Yours affectionately Brother,
Benj. Smith Lyman.

1350 South Fifth Street, Philadelphia, 6 May

Susan B. Lyman,
Jamaica Plain.

Dear Aunt:

My visit at your hospitable mansion
broken by spell that beset my path with
Boston & Railroad Blockade and other hinderances
and my journeyings and sojournings have been
safe and pleasant. The day I left you
with the Saxtons at Springfield, and reached
at five o'clock. It turned out that Shad
turned [illegible]. That afternoon
my arrival members got added and in
made my reading something [illegible]
evening in reading & then about the pl
and its matter and extracts from the pl
I was able to prepare the matter perfect
then was a grand concert in the Old
and I went; and the morning after that
the German Club. Was thirty
night & came to New York, and
after Astor Library and came here
the Lesleys were [illegible]; Mr. Lesley seems
but goes tomorrow & Mrs Lesley
comfortable last week and the week
and very well and all at Wood
"having

No. 15 South Fifth Street, Philadelphia, 28 Mar.

J. C. Cox, State Geologist.

Indianapolis, Indiana.

Dear Sir,

I have the pleasure of acknowledging with thanks the receipt this day of your kind and valuable volumes of the Reports of the Geological Survey for 1869 and 1870.

Very respectfully yours

Benj. Smith Lyman

135 South Eighth Street, Philadelphia, Pa., March 1st
1871.

Rev. Ben K. Emerson,
Amherst
Mass.

Sir:

Your kind favor of the twenty third was welcome here and duly received; and I have to thank you very much for the receipt yesterday of the elaborate and valuable pamphlet on the "Schulle von Markoldendorf bei Einbeck".

We are sorry we were disappointed in not being at home and see you and the Cabinet. We expect, however, to be again

Very Truly Yours,

Benj. Smith Lyon

135 East Eighteenth Street, New York, 28 Mar. [illegible]

Dear James:

Your favor of yesterday is at hand. I will be obliged to you if you will [illegible] me and Miss James a letter of introduction to Mr. Kimball in case we [illegible] to Canandaigua. [illegible] Kimball's address is Canandaigua, N.Y. I did not think of [illegible] Ivy, Rood and Barnard, because they [illegible] and as I was quite unacquainted with [illegible] no personal interest in it, but I sent one [illegible] to the Columbia College Mining School for students [illegible] interested in the matter who had not [illegible] thought, perhaps you would have [illegible] Messrs. Aldrich, Ripley and [illegible] might feel more or less interest in the [illegible] I thank you for your notice [illegible] but I am afraid it [illegible] for you to publish a notice of the work [illegible] it may be thought to prejudice it. [illegible] of similar notices from notable [illegible] in the [illegible] and any [illegible] to the [illegible] [illegible]

135 [illegible] Phila[illegible] 24 April

[illegible]

Yours of yesterday is at hand, and I have [illegible] your first copies for revision. I have [illegible] your proof sheets. I am [illegible] you for sending what you did. The copies of the newspapers, especially, I would have sent me myself. Mr. Bird, [illegible] of Imitation not [illegible] [illegible] engraved with at Chicago in 1864; but I [illegible] [illegible] address. Had no copy [illegible] a correction of Mr. Bliss.

I expect to take notice of your notice of [illegible] in the Tribune, but will wait [illegible] until [illegible] Leaves

I am pleased you found those articles entitled [illegible] Mr. Miller is now printed and I send it to you herewith in the Daily Journal. It is not an imitation made by the writer of the Lyric and [illegible] with [illegible]

As I have [illegible] extra copies of this paper [illegible] forwarding, I would be glad if you [illegible] [illegible] them for me [illegible] [illegible] to me [illegible] as regards the remainder of the [illegible]

Yours affectionately [illegible]

[illegible]

135 South Fifth Street, Philadelphia, Pa.

Dec 1st

Sec. Keystone Cannel Coal Co.
No. 58 Broadway, N. York.

Dear Sir:

Your favor of the 27th came duly, stating if I would undertake certain prospecting surveys near Exeter, W. Va., how much time I would give to them, and on what terms would be.

I could undertake the work and would give as much time to it as might prove needful. Perhaps a month would be enough in case it should prove necessary to make a wholly unfavorable report; or enough to determine whether more time would be desirable in case matters looked favorable. My terms would be three hundred dollars and expenses for any time less than two weeks, counting time spent in travelling; and a hundred dollars and expenses for every week more than two.

Yours very truly,

Benj. Smith Lyman

[illegible]

[illegible]

F. E. Lee Esq
[illegible] Cannel Coal Co, [illegible]

Dear Sir:

[illegible] is at hand and [illegible] by it that you have in mind [illegible] "expenses" in [illegible]. The expression is [illegible] that I do not think of [illegible] more [illegible] with the travelling [illegible] journey for [illegible] and boarding while on the ground [illegible] and instruments [illegible] the trip. Also [illegible] any need in the survey, such as a guide over the ground [illegible] man or men to carry a level rod, but this item will [illegible]. Also any labor that may be needed to clear [illegible] any trial pits that may have been made on the [illegible] and be able to measure it. This [illegible] I would have to make especially for the survey, [illegible] Ordinary [illegible] All such expenses [illegible] I imagine, & the neighborhood of me [illegible] me talk as much as to [illegible]. This may be [illegible] expected, and you are still at liberty to [illegible] arrangement.

It would be very desirable to have all trial pits and [illegible] on the property well prepared for examination by [illegible] and I would like for you to write to have it done. [illegible] desirable for me to have in my hands as [illegible] any documents of your ownership showing any [illegible] lines of the neighborhood; and I should like to [illegible] for better get the exact description of the boundaries, with [illegible] distances of each distinct tract. I understand that [illegible] of the Hyatt Coal property nearly opposite [illegible] of land that [illegible] encumbrances upon it; and if [illegible] matter would be very much [illegible] we were [illegible] interview. [illegible]

[illegible]

135 South Fifth Street, Philadelphia, 12 April,

P. L. Lord Esq. Sec'y. Pequa Coal Co., No. 18 Broadway, N. York

Dear Sir:

Your favor of yesterday is at hand, as well as the pamphlet, for which many thanks. The other pamphlet [illegible] of sending [illegible] not come and has, I fear, miscarried. Would it be possible for you to send me another [illegible] I [illegible] writing for [illegible] by [illegible] on the geology [illegible] region, I find reference particularly [illegible] and such pamphlets of [illegible] [illegible] of [illegible] [illegible]

[illegible]

[illegible] would be in my power [illegible] as you suggest any [illegible] Coal Co. [illegible]

Yours very truly,

Benj. Smith Lyman

Lick Log Iron Coal Co. No. 50 Broadway N. York

Your favor of yesterday is at hand
as you conjectured a more dismal place than Lick
Log never did exist, and I am heartily sick
and disgusted only by the fact that I have been so
much & have what I write. I am still getting
on, and think I can leave here sometime
next week. I shall probably be able
to spend at least two or three days at Big
Lens Creek, so as to learn definitely
something there quite similar to coal beds getting
the time is very short that you may come before
looking over carefully and reporting on the
property; but I shall do the best I can.

Yours very truly,

Benj. Truett Eyman

130 South Fifth Street, Philadelphia, 18th July 1

Dear Sir,

Have to thank you very much for your opening the Bridewell and for your valuable and interesting paper on the planning of the Penitentiary

I remain

Yours very truly

Benj. Smith Lowe

135 South Eighth Street, Philadelphia, Sept 10.

J. W. Harden Esq.

No. 2823 Girard Avenue, Phila

Dear Sir:

Allow me to make you acquainted by
this with Mr. Christopher Ford, a countryman of ours
who is in search of employment in mining
engineering. He brings very good letters of recommend-
ation, and makes a pleasing impression. I have
thought that you would perhaps be glad to know
such a man & fill a place in the mining works
with you are connected, or at any rate that you
could give him a clue to finding some employ-

Very truly yours.

Benj. Smith Lyman

135 South Fifth Street, Philada, Dec. 20

S. S. Lewis Esq.

Sec'y Keystone Coal Co, Harrisburg Pa.

Dear Sir:

I have to acknowledge with thanks the receipt of your favors of the eighteenth and nineteenth. I trust that it will allow me to start for West Virginia by next Tuesday. The instrument maker has been unexpectedly delayed in finishing the engineering instrument that I wish to take with me, and promised to be ready some days ago; but he expects it to be done Tuesday. If you desire a personal interview with me before I go I can leave here Monday or Tuesday. If you write a letter to that effect, or if you prefer I could visit you here. I cannot, however, think of any special advantage that would be gained by such an interview. It would perhaps be best for you to give me a line of introduction to your superintendent at Wilkesbarre. The letter you have already written sufficiently states your business. It is encouraging to learn that the Lewis Creek lands of the Co. are not so large as it seemed at first. I find that a copy of the St. George Company's pamphlet was sent to Mr. Lewis the day, and think it must have been the one sent to me and that seemed to be lost, probably a slip of the pen in addressing it. I send it back to you therefore by this mail as requested.

Yours very truly

Wm. Smith Lewis

[Not sent, as the plate was found at the Bay]

38 South Fifth Street, Philadelphia, 2d Sept 59.

J. H. Brennan Esq.
Editor of the Petroleum Monthly
Oil City, Penna

Dear Sir:

Prof. Leslie desires me back if you have, and lend him the plate of my magnetic Pungent Oil Cooler; and, if you have not, he begs that you will do it at your earliest convenience. He feels responsible for its safe return to the Society, and would be glad to have his mind relieved from all anxiety in the matter.

Very respectfully yours.
Benj. Smith Lyman

165 North Eighteenth Street, Philadelphia, 22 Feb[ruary]

Mr. C. C. Richter

Easton, Penn[sylvania]

Dear Richter,

I am sorry to hear that you have been unwell, but I am not surprised that you should be so, considering the severe cold which has prevailed for some weeks past. I hope, however, that you will soon be quite well again, and that you will not have any thing more serious to complain of. I am glad to hear that you have taken the best possible course in order to get rid of your cold speedily, by keeping in doors and avoiding the cold air. I am sorry for you, although I have been there myself.

I am going to New York and return to-morrow, and within a day or two after that I shall go to Virginia to make a concert, so that I may be gone for three weeks or more.

Hoping that you may have good luck in your search for better employment, and begging you to remember me to Prof. Perini, Bremner

Yours truly

35 South Fifth Street, Philadelphia, Sept 22d 1856

My dear Locke:

Your very welcome favor of the 16th ult. came duly to hand; and I gave you order to instrument-maker with great pleasure to Heller & Brightly, No. 33 South Second Street. They received it with pleasure also and have set about filling it. I will send the small things you wanted for yourself in the same package with the rest to Mrs. Murphy's care (but don't tell her so, as it is a smaller package), unless you order otherwise. I am afraid they will hardly be able to send it over to you by the level road after my decision as you ordered; for although I had already when you wrote begun preparations for the journey, I will now have to be interrupted for two or three weeks or more while I am making a survey in West Virginia. I will, however, write you from Philadelphia now & then & let you know about the time and cost of my Solar compass when it is ready made. John Phenix says the thing we often call "instrument" is in the Bigford, with 1250 of which he proposes to regulate the county, with a network of three foot lines. Surveyors especially on your side of the Rocky Mts. use the Solar compass for running lines according to the true meridian & not magnetic; and my form will enable them to do so with a transit, since the Solar apparatus is attached to the transit outside of the telescope. Heller & Brightly have been afterwards making one and expect to have it done in about eight days now, and will then be ready to fill orders for it. They are still uncertain about the price; but I imagine it will be something like fifty or sixty dollars in addition to the cost of the transit. The old Solar compass cost $200 or $225 without the transit at all, mine will cost I dare say eighty without the [illegible]

I have been sick for two or three weeks past with a [illegible]

135 South Fifth Street, Philadelphia, 2 Oct 1854

S. E. Lowthorp Esq.

Sec'y Keystone Coal Co., No. 81 Broadway N.Y.

Dear Sir:

Your favor and instrument [illegible] have come duly to hand. I grieve that [illegible] matter has been unexpectedly delayed [illegible] have been on a [illegible] sick, so that my instrument will not be done until a few hours to late to [illegible] mail, and I shall have therefore to wait [illegible] day. On the other hand, however, I find by the time [illegible] that the trains run so very inconveniently for leaving [illegible] I hoped to, that I can [illegible] up my [illegible] so might through without stopping. I shall mail Wm. Skelton or Coalmont by Monday morning the same as we were calculating.

The value of the Keystone lands depends materially upon the thickness of the principal coal bed and the extent to which it is developed. To determine its thickness it will probably be best to make a tolerable [illegible] and then along the outcrop around the hill, say at points half a mile or a quarter of a mile apart. I shall probably not be able to point out suitable places for such openings; and will like to know whether you would wish to have them made right away so that I may perhaps be able to report at once upon the thickness found. The results of such openings could hardly be kept very private in the neighborhood, and possibly you would not care to have them known before the [illegible] of May.

Very truly yours.

Benj. Smith Lyman.

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U.S. Steamer Fulton, Philadelphia, [illegible]

Ed. H. R. Lyman Esq.
Firm Sterling Hijs. New York.

My dear Uncle:

I send you herein the invoice, [illegible] bill of lading of the package containing the Rum, for Chandlers. They seem to have left Calcutta in the "British Monarch" sometime about the tenth of May, and so would be due in New York about the tenth of June, or possibly, earlier.

Hoping it will not give you too much trouble at Home I send the Custom House and Revenue Cutter will take her pick of the Chandlers and [illegible] the visited for, I remain

Your affectionate Nephew

Benj. Smith Lyman

135 South Fifth St, Philadelphia, 8 Sept.

Dear Lizzy:

Your favor of the twenty first came duly, & was very welcome, as I had long been fearing that you might be sick, for I had not heard a word from you since I left Northampton a month ago. I wrote to you just after my return and should have written again if anything worth the matter had I not been very much discouraged under the weather. I can still spread the blame off at the doctors, whom I would not send for in the early stages of the sickness of the Lesleys and some of the friends. They say very bad [illegible] doctor had come it would have been called pneumonia, congestion of the lungs, pleurisy, or some other long twisted name. It is more than likely that I might have died, but if a doctor had come it would no doubt have lasted three months instead of three weeks. I was very uncomfortable for a few days and not good for much of the time, but was up and dressed every day as usual, and every day but one very rainy one I was out at least a little. The last ten days I have been walking from five to seven miles nearly every day. I have done no work however beyond writing a few letters and business letters until within three days ago. I went to New York and back to see some gentlemen who are backing me & then Virginia to make some money, and I am now busy preparing to start to return soon. Perhaps I may go from two to four weeks, and shall be near Charleston. I cannot leave the seat of the state. I should have left [illegible] days at least by

of it had been possible, but I am learned off at present. Uncle Edward and his house are interested in property & go to Surrey, but he knows nothing of my engagement. I told him yet on Tuesday. The correspondence with had been through his cousin Lord E. Lord. Uncle Edward seemed well and said his family were to do. He thought he should go to Northampton in two or three weeks. I am glad Lizzie by your letter that the house is so satisfactorily arranged as to furniture. The journey can perhaps be thoroughly devised without much difficulty. It seems better now of course than at any other season. Get you and James at the New York and planned him in some Malt and spirits. — Edward seems to be very well from an extremely severe attack that began on Easter Monday, an attack like the one he had between Boston and New York last fall; he has been well effects weakness for a week or two, but he will come down stairs yet. Miss Harriet Wood began a visit here and Miss Lucretia Hale has been here a couple of weeks. Mr. Lesley and Mrs. Wolcott here for a few days. He got home two or three weeks ago & had Thanksgiving, and is in usual health & spirits very kind. He gets on well, Ry & Eastman Johnson, and saw Phil here apparently much improved. He is much interested in his painting from Longfellow's Evangeline for a play to be acted here. Rehearsals for a couple of weeks will be: one of Mr. H. W. Longfellow's friends. Country, Gentlemen. Ruby — attend [illegible] [illegible]

135 South 8th Street, Philadelphia, 25th April

My dear Fanny:

Your very welcome favor of the 4th inst. should have been answered long ago; and would have been, had I not been laid up with a severe illness for me, at any rate, more severe than I have had for twenty years before. I have not been confined my bed a single day and only one day by the illness, but have been too much absorbed to write letters even, except some that had to be written. I was delighted to learn by your that your papers on Lucretius had been so well appreciated indeed than it deserved, and I was, and pleased at your success all about it. I was in hopes of persuading Hummel to sing (Mendelssohn's) 'The Clock' and so give an illustration of singing much that I saw at Calcutta, as he could very well I showed him the song at Jamaica Plain with part of the music underneath a rough pencil copy of it which is hope that he will remember. I fear however that it is too late for this year, as I should have to give him information, by means of pictures chiefly, of the costume; but he might have it all ready for next season. All our song seemed rather too little for a whole evening. I have made and now send you a copy of the words of two Mussulmaun drinking songs by Meerza Shefee, a poet of Tiflis of modern days. Here the translation and my own. Small chiefly have them six years ago. Perhaps I can find some tunes for them; or perhaps I can find the tunes to which the German students sing the German version. I am ashamed to send such a rough looking pencil copy of the song (by Hafiz, by the way); but am so hurried in my preparations for my trip tomorrow to West Virginia that I cannot write over the copy even. I am hurried off with the earliest pencil I can find some where, before indeed my brother to the city for the change of air will do doubt remove the trifle that remains of it. I shall be glad to hear from you a few weeks hence, and if you should change my address write to the care of H. W. Smith, Esq., Wheeling, West Virginia. This is a very poor return for your visit to

[illegible]

[illegible]
The [illegible] book of wisdom [illegible]
[illegible] [illegible] [illegible] [illegible] wine!

[illegible] Both the Lord he would [illegible] make,
He cried: Let man be [illegible] here!
I'll fill his head with wit, his eye with sapphire,
For he in [illegible] shall eye divine wine!

This is the reason Adam was
From Paradise was driven out:
No Eden could for him be fit,
He would not, not enjoy, drink wine!

---

The human race was all destroyed,
But Noah lived with all his house;
The Lord said: Be my friend true,
For thou didst buy by leg drink wine!

---

The water thinkers let them rave
Be drowned in water very one;
But, servant mine, in wooden walls
Do thou without dismay drink wine!

---

Mega Thales! so doubly armed
To thee the choice was plain;
No water monster [illegible] be!
No! No! Thou [illegible] wine!

[illegible] I would [illegible]
[illegible] from [illegible] drinking [illegible]
So not debarred be,
Nor Morphy [illegible] with me,
When Embers [illegible] bottles
Will golden flashes shine;
Who wine like water swallows
Is unworthy [illegible] wine.

---

Here lies a wine-grower
For pruning, for hoeing;
He wine drank a barrel
Of wisdom and of raving!
Yet though the thirsty soldiers
Shall build a great pile,
Who wine like water swallows
Is unworthy [illegible] wine.

135 South Fifth Street, Philadelphia, 26 [illegible]

C. S. Lawley,

Sec'y. Keystone Coal Co., No 58 Broadway, N. York.

Dear Sir:

I am very sorry to have overlooked your letter of the 18th inst. I got your favor yesterday and have to say that my departure is delayed still another day by the non-arrival of surveying instrument. Have been to-day to see it, however but find I can go tomorrow, as after 12 o'clock this afternoon only a mere trifle remained to be done on the instrument. I trust that the unlooked delays will not cause you any [illegible] annoyance; my hopes are kept up from hour to hour and you will have to the last moment [illegible] another year away, that my business will be all packed. Meanwhile, however, my health is steadily improving, so that I shall [illegible] with [illegible] prospects in that regard than I had a few days earlier.

I will pay the particular attention to things in which you desire.

Yours very truly,

Respectfully

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135 South Fifth Street, Philadelphia, 27 April, 1[8]

Dear Capt. Wagan:

I have to thank you very much for your kind favor of the twelfth just at hand giving me the sad news of Mr. MacQueen's death. It is so wholly unexpected as to be a great shock to me. I blame myself now more than ever for not having written him months ago; but, although the idea was often in mind, I put it off at first in hopes of getting a line from him in answer to my last letters from India, and afterwards my efforts were very much taken up with family matters. There was particularly the long and very painful illness from which my mother finally her death in November last. Since that time I have lived much at Northampton (Massachusetts) with my father and my sister who are living there alone. Through a good friend of mine coming home from India I had sent me a pregnant and pleasant reminder of the MacQueens. Mr. MacQueen had given me to understand that his wife in her fondness for plants would be glad to have some tea seeds to experiment with; and I tried to get them in Calcutta, but without success. In China, however, at Hong Kong, I made an effort in a neighboring tea region, and found the plant growing; and with great difficulty made known to the natives (with the help of characters) that I would like some seeds of the plant. It turned out that at that season the seeds had been gone and small seedlings and sprouting seeds not ready to be put in the ground. So I brought away a quantity of them in a little small wooden pot filled with earth. My plan before leaving China was to put each tree and young tree, with

delighted. They ordered the big things for me and accordingly I made a trip to the Yosemite Valley for a couple of weeks and left the plants in the care of a hotel proprietor who promised to be very careful. What was my disgust on my return to find that instead of his having kept them under some water they had all been washed away! I had had some hopes of the big trees myself in Calaveras Boston last summer. This time again I formed with some definiteness a plan for visiting Sydney this summer and have not altogether given it up yet, though it is very uncertain. I am today just setting out for a trip of several weeks to West Virginia in the neighborhood of Parkersburg and of Charleston, to survey some coal lands. Mr. Macfarlane used to tell me of some near relative of his who lived there and I have been promising myself the pleasure of looking him up, although I am not sure of the name, but think it is Macfarlane's brother. It must be very pleasant to have Grace, especially after her bereavement, to have you living so near and your wife still with her. I feel already somewhat acquainted with you from the good words I have always heard about you, and should indeed feel great interest in your connection now with a family that I esteem so highly. I am glad you have decided to remain an inhabitant of California, and you could hardly find a pleasanter city than Sydney according to my recollection of it. I congratulate you most heartily on your marriage. I think your choice of Mrs. Ward is most unexceptionable and among the pleasant memories of my visit in Sydney those of her friendship shall not be forgotten.

Please give my kindest regards to Mrs. Macfarlane and to Grace, and assure them of my sympathy in their bereavement.

Yours very truly,

Peytona, Boone Co., W. Va., Albany, N.Y.
Mar 4

P. P. Lawley Esq

Sec'y Peytona Coal Co; No. 58 Broadway, New York

Dear Sir:

I left Philadelphia Saturday, and reached Parkersburg last night, and luckily found a steamer just about to start for there; so that I reached Charleston monday afternoon at five. Mr. Devin met me at the boat landing, as I had telegraphed him from Parkersburg according to your instructions. It was too late to start up the river that day, but we got what information we could about the claims of the Lens Creek lands at the Registry of deeds and started early the next morning. What we have may answer the purpose though not quite perfect. Just as we were setting out in the morning Mr. Gordon was detained by some unforeseen important business connected with the shipping of the coal, and we had to wait until just after dinner. Then we drove up the river to Brownstown and then up Lens Creek and its Right Hand Fork over to Peytona arriving here just before dark. On the way he gave me an idea of the lay of the land and we looked at one opening that had been made lately by his directions. Coal was exposed in it twenty nine inches thick, of which five were cannel and the rest bituminous. This was high up the Right Hand Fork. Other openings have also been made especially some on the Left Hand Fork. This morning we visited the mines here and the over ground works, and went into the underground workings to several distant points. This afternoon it rains and prevents an excursion we had planned to more remote points of the property. To-morrow and perhaps next day will have to be spent in such excursions to give me a general knowledge of the ground before it will be possible to make definite plans as to the work in detail. The tract is so very large and the distances so great that I am almost at a loss how to accomplish much that is definite in a very short time. I think it best to go to Huntington before going to Lens Creek as it will relieve me of that bother. My landlord has contracted to keep me while I am here at $2 per day, which is not quite so high as I expected.

Yours very truly. Benj. Smith Lyman

Peytona, Boone Co. West Virginia, [illegible]

[illegible] London.

I am delighted to know by your favor of the twelfth ult. that Concord is to be your home again for this Summer at least; and I write agree with you that the move is especially desirable now that some of the boys are old enough to go to school. To many of your friends it seems to me a much pleasanter place to live in than Springfield, and I only wish that I were living there too. [illegible] on you reward them. Perhaps Miss Sanborn would not do so; for you say in your letter of the twenty-second March that her feeling in regard to my criticisms on Mr. [illegible] had already grown more moderate. I was rather glad to speak at the same time of the Northampton ladies as [illegible] friends to me. It was I that forgave, and they I trust were pleased. After leaving you I concluded in reflecting that I had admitted rather too much in acknowledging that my rather intimate male acquaintance was more numerous than my female acquaintance. Intimacies. When I thought over their relative numbers in the different cities and towns where I had lived I was inclined rather to think them equally balanced in number if not leaning to the other side. Of less intimate acquaintance too, such as one meets in travelling and the like perhaps the women are quite as numerous as the men on the whole. As to their character reflection does not make me change my opinion that the men are at least as "pure" as the women; but of course no one virtue or class of virtues should be considered in such a comparison.

Your letters came duly to hand, and would have been answered more promptly and I might have been suffering from a somewhat severe illness from which I am not quite recovered before I left home. Never indeed have I been so unwell since that memorable day at Exeter over [illegible] years ago when I was still young. This time the case I was [illegible] and dressed nearly as usual every day, and even rode in the [illegible] but was very much [illegible] every day but one very much [illegible] The disease [illegible] weeks or more and in my [illegible] [illegible] changes in [illegible]

d v Doctor I should doubtless have been sick for three
t least, and the trouble which I call a very bad cold would ha
een named pneumonia, pleurisy, congestion of the lungs, water
t heart or something else magnificent. Some of my kind friend
urged me to consult a doctor, and Mr. Carter on first learning
his sickness insisted that I should go to bed in his house and
an endeavour offered to put a mustard plaster on my chest.
Heaven forbid! I ~~should~~ ~~[illegible]~~ ~~[illegible]~~ straight. The weather was doubtle
all the time ~~[illegible]~~ tendency; no doubt how it came to be
this not quite way just at present would. When I was at the Hotel a
Letter came from Newport proposing that I should come there to
some meetings, and it was finally agreed that I should come. Left
a week ago yesterday after a trip to Newport and back again t
succeeding Tuesday; and I arrived here last Tuesday evening. Came
by the way of Baltimore and Parkersburg by rail, and from Parke
to Charleston by steamboat down the Ohio past Ravenswood (the
famed "galley police"), and up the Kanawha, without an
explosion of any kind. The vessel I came on was taken in the
middle of the night by mud and remained my state room door and
the key in the lock and could get no answer to him knock, when he
wished to put a late passenger into my upper berth. The policy of de
Newton's inertia proved unerring one in this case, and the boat
passed on, with equal grace" as the pundit says to two other
other steamers, until he reached one that had already been left on
his track. The steamboat journey lasted twenty eight hours beginning
about eight noon on Sunday. We passed Pomeroy at the end of the
on Monday evening and I admired the trip's seven miles of gas
lights along the road on the Ohio shore there; but could not see a gaslight
anywhere. You know Dr. Lee's Howes, daughter is married to Mrs. Lee's
there, a leading man of the place, and the Howes are also in some way
closely connected with the Pomeroy family there. As we came southward
the weather seemed to grow warmer, and the leaves a little more advanced
I had left in Philadelphia. Only the leaves just budding out and cherry
peach blossoms just coming out. On the Ohio and Kanawha the fruit
trees, and the elm ~~[illegible]~~ are all in bloom, and ~~[illegible]~~ from the hill sides
~~[illegible]~~ with dogwood and other shrubs ~~[illegible]~~, some of the

is [illegible] and the [illegible] are yellow, and the leaves are [illegible]
the pine tar; so that the trees often present a very pretty appearance. I found many
of the ladies in Charleston and some many of the gentlemen speaking
very well of the colored men as voters & the total disfranchisement of the ex-
rebels. I had a big majority of the county supposed themselves entitled
to vote. I do not however think that they have taken kindly. They even ostracise
one out one or two of their comrades disposed in evidently in favor
of giving negroes a little fair. One of them, apparently with the best
intentions though not out of the ranks, showed that he could read
and understood well the use and meaning of maps and quickly found
out his native place. He said they had pretty good schools in the C.
and three teachers, just enough, for as he said the colored population
there is not very great. I had been struck with the fairness with
negroes that were the cars. Also with the good manners of
them everywhere. The hostler of the [illegible] seems indeed the
equal as good as anyone at the north, if not indeed with a little
more of a mixture of equality than at Philadelphia, and perhaps a
little of the old feeling that there used to be even in slavery times. The
waiters, of course are only [illegible] fair, but still, better than
we have to encounter at the north. I have also been struck with the comfort
& well-to-do appearance of all the colored folks on the boats and cars
now of the cabin, dressed & unhappily prove that you see everywhere
in the south before the war. Now they have, as you might expect, altered
the look of an independent feeling; and even the rough looking boat
hands seemed to indulge in more dressy and [illegible] finery
and things than I ever saw before in my southern travels. The
disagreeable thing to us has dropped away, and that is the use
of the expression "Master"; they always say "Sir" now like white people.
I do not know at all how negroes used to be treated in the
churches again, but compare it with East Virginia and the
parts of the South even up to 1866, and Alabama in 1867. In
this region used to be "old time whig," [illegible] and is now "moderate." I have
the Cincinnati Convention [illegible] before it met. We have just here
Greeley has been nominated for president & [illegible] to the
Convention, and I suspect he will [illegible] by the
Indeed I should be surprised if [illegible]

he a better president & he whole Am. Genl. Harrison
very strongly in favor of our movement against Texas
he candidately but have also talked of none but Harrison
and of the likely to be an improvement in Genl, and that
could easily be elected this year. I hope he may be
as heard, if he does not lose to many friends by
movements as this against Texas. Perhaps to strike
the movement & its effects early placing Mr. C in opposition
and so less under its influence than before. I have known
to be concerned that Mr. Crittenden has been guided
by any other motive than its effects. I have even
but that the Springfield Republican could have been persuaded that
Mr. C's declaration would please persons among with if other Whigs
would support him in favor of something like that. On the high
ground Politicians were small politicians all very about
Texas. With exception enlarging. One of them made
Mr. Clay & Mr. Crittenden principle that influenced no doubt many
of the people; viz, rascals, thieves and two faced. The Cincinnati
with, Clay, and Crittenden Whig Republican (Democrat). but Mr.
was [illegible] very liberal very encouraging
Mr. C that Texas as well as the whole as Franklin done. I am
inclined at present to favor the one term principle, or term of
years with a clause to make a change in an extreme case with
one of four years. For the rest the desire to get rid of Texas seems a
hopeful work in perspective, the public perceive that much of the
unfriendly politics of Britain, than on any principle. —
our more local matters, the people of this region although long hitherto
opposed to the extension of this state from East Virginia, are now
quite reconciled to it, especially as for them
the Capital of the State Charleston. That town and those
Kanawha inhabitants and now claiming three fifths of
but a stranger can hardly help wondering where so many
looking people are got there. I saw
at the High School at Williamsport, and asked a man what
a Hotel? oh Hotel house. The woman was confounded. Call the
Capitol. the State House. Oh this was the most beautiful Capitol
ever entered with gilt, and had a fine view of the whole town.
[illegible] but very few had [illegible] to [illegible]
[illegible] the middle class of town people. The Capitol [illegible]

[illegible] letter [illegible] from Boston & Philadelphia [illegible] among other things entitled Nonsense from the Land of the Lotus and the Nibelungen Lied. I did expect you at least eight months before he got to Boston so that you might be published about him in advance and might be induced to read and hear his Lectures if not induce others to do so through the publication or Newspaper. When I got back to Philadelphia from Boston I had already begun his poem, so that I had two months advantage and afterwards my publishing title made me lose the best of his mind recitations; but I did hear three or four others and was extremely well pleased. His elocution is admirable, his face is handsome and his gestures expressive, so that great effect is added to his poetry. Here are no more a "translation of the Nibelungen" than [illegible] translation of the Iliad, which I read through Jordan's Siegfriedsage an epic of 16000 or 17000 lines and found it very good. Longfellow's poem is over eight times as long as it need have been for English hexameters. The verse is as you remarked. The Nibelungen Lied alternates and varies with [illegible] of alliteration, and he seems to carry alliteration much further than was likely to Knight people. He has for example in an extraordinary case as many as nine words (I believe) beginning alike very near together; it is an oracle. Many of the lines are pure anapaestic and trochaic verse. It is possible by some licenses I have made out a rule for his verse and to have established a new one. Among other things of the kind he is the use he makes of [illegible] common words although [illegible] pleasure on the same [illegible] for behalf the Bank of Boston or Girard Bank. Both Philadelphia. They could hardly have made more [illegible] gotten than they did of him. They had paid his expenses from the Lyceum [illegible] and he expected about a thousand dollars for the whole poem, the best part of it; and then they got him off [illegible] Thursday evening [illegible] Philadelphia Lyceum [illegible] which I unfortunately heard the first one. They had numerous entertainments in his honour; they had him dined and supped [illegible] and elaborately they had theatre and music and a grand

Dear Plato — a capital bon chrétien, very convenient for a man
in travels. Mr. Short they entitled all the cakes in their honor
—, and he said he had been so well received nowhere else. He
said that he had in New York been discouraged from going to Phila-
delphia as a place of low literary taste and the like; and perhaps
his story added to the zeal of the Philadelphians. It was of course
Mr. Irving chiefly who paid him these attentions, but they drew in
all our best friends of the Pennsylvania, Mr. Furness and Mr. Whitman
among them. There was in fact quite a furore in the intellectual
circles about every time evening we were very eagerly filled up.
The German literary or educated society at Philadelphia is
not me very large, but they were very fully represented in
our meetings; and I soon found me among them quite a number
pretty young ladies, some really very handsome. — That recalls
to my mind, for the lady of the house where I am staying,
a young woman is very good looking and nearly as tall as you are.
But another young married woman who is visiting here and is
quite of the other sex, I mean, of her husband is remarkably
pretty. In my room, apparently the sitting room of the house
there, is an old photograph album, not of Lafayette and Washington
as it is in the very pretty "The portrait" and as "Katy did," or laughing
Gerard Dillon, "Miss Dick of Boston." I would have a boy again and
like. Over the portrait of this beauty, a very pretty picture, is written
"Cordelia Kate, and I have seen it" the portrait Kate in Christendom," of
which I am inclined to subscribe, but only. I would also be glad to
know by telegraph if there would be any moral wrong in my taking
this portrait from the book with the laudable object of showing it
to North Carolina pretty ladies sometimes and in this part
of the country. It might possibly be a violation which is more
heavily by the telegraph reminds me to ask you to communicate to
me the joyful news that the Chandlers have actually left Calcutta on
Leonard in the first ship by a letter from Bellows. They are on board
the sailing vessel "British Monarch" bound to New York, where they
probably arrive about the tenth of June. Jeffrey [illegible] line about
Jeffrey, and possibly more; or Sonny go to New York then and come back
to Newhall with immediately a letter could meet me here, otherwise address
[illegible] letter will be forwarded [illegible] this place is a famous Canyon
[illegible] Telegram [illegible]

Sutton, Braxton County, West Virginia,
July, 1862.

Mrs. Annie Bell,
No. 135 South Tenth Street,
Philadelphia.

Dear Annie:

Please give the enclosed address to the P. O. clerk, and ask him to forward my letters to another place. One of the has forwarded has already come and more very likely more are on the way; for it takes letters a good while to reach this out of the way place.

Please give those blankets of mine on top of the case a good beating now and then to keep off the moths. I might to speak of it before coming away.

My health has improved very much since I left home and I am now quite well and about as strong as usual.

I shall probably be here a fortnight longer, and possibly more; and shall perhaps write again when I wish the letter carrier to stop forwarding letters.

Hoping that you and all your family are quite well I remain

Yours truly,
Benj. Smith Lyman.

[illegible]

[illegible]

[illegible]

[illegible]

Boston, [illegible] 5th [illegible]

C. Lee Esq.
Sec'y Boston Coal Company, No. Broadway, N.Y.

Dear Sir:

Since writing you on May day my time has been occupied chiefly in becoming more familiar with the lands of the company here and their surroundings and with the mines and workings and with the Lens Creek lands. On Thursday morning Mr. Fordice & I came up Dudley's Creek to the old [illegible] & Philly. Coal Co. In the afternoon we went up Indian Creek and visited various parts of the property on the Creek. Friday morning we went into the mines upon the line of the Co's lands and through the cross cuts into the Big Vein, and to the Old Boston Tunnels. [illegible] sometimes I have done some [illegible], such as the various of the different tests and of the underground workings as distinct from the Coal Seam. Saturday we spent in a trip up the Left Fork of Lens Creek and up to the Right Fork of it and up several smaller runs to look at and measure several coal beds that have been opened there under Mr. Fordice's direction. He has given directions to have still more openings made, at my request, and also on Indian Creek where some were found not long before now fallen in. This will take several days, and I shall be able in the mean time to do a little surveying with the instruments to determine more exactly than can otherwise be done the identity of beds of different openings. Of the beds we examined on Lens Creek there seems to be two and perhaps three workable ones, all lying or rather underlying a very large portion of the property. The lower of these is about three feet and a half thick and made up of [illegible] coal and is the same bed as that on Indian Creek. [illegible]

bed, composed of a very fine, [illegible] coal, all but the upper dip in the, which are [illegible] by comparison. Mr. Goodwin is quite in love with this bed of coal is so fine as to bear transportation very well. What I am most about it is the amount of it, which should be determined by the survey before the first of June. Besides these two beds there is one imperfect opening of the Cannel coal bed that was formerly worked at the factory, and this seemed to be about three feet thick; but it may possibly turn out to be the same as the splint bed just mentioned. This Cannel does not seem to be quite equal in quality to that at Peytona. It is not impossible that the same bed may have at one point the character of splint coal and at another of Cannel, and at still another of bituminous coal; but the Cannel and splint beds of Lens Creek are distinct and perhaps correspond to the beds of similar name at Peytona in spite of the difference in quality. — As for iron ore I am more than ever of the opinion that there is none of value either here or on Lens Creek. — There are two veins more than coal beds on Lens Creek.

No time is now to specify about and the distances and routes so very great and the means of getting about so few. I hardly hope to do more than to prove by a little instrumental surveying the real number and relative position of these coal beds on Lens Creek, especially the workable ones, their dip &c so as to show whether mines on the Right Hand Fork would drain themselves or not, and very roughly, the estimate of the extent of the beds in acres, or square miles, very rough, since this would take a good deal more work. I hope also to get similar information on Indian Creek, and have strong hopes of proving that the Main Cannel Bed [illegible] Creek and also a very wide extent, especially on the [illegible] part of your tract, an extent that makes that region promising [illegible] very almost insignificant. Of course the thickness of the Cannel part of the bed on that upon is uncertain until trial openings [illegible] but the good hopes of it and do not see why it should not [illegible] about eight feet [illegible]

Raytown, Boone Co., W. Va., [illegible] 1878.

Dear Keller:

The model packing seems to have brought the inde
pendence safely, although it went over the railroad as common
baggage in spite of the objection till that the baggage master under
stood his duty & that it must go at my own risk. I have noticed
[illegible] since. On looking at it the other day I
found that the numbering of the degrees was after all inju
diciously done & that it should have been [illegible] So numbered
[illegible] numbers should have run from North
to S. W. & E. & [illegible] & is in the compass marked of course left
[illegible] have run Eastway &c.
I have just [illegible] made the glass with the numbe
rs[illegible] the right way. The numbers of the vernier ring should
also be reversed [illegible] with the compass numbers.
All this I relate for the benefit of your future customers.
The trial [illegible] unbridled seem to have come
to safely &c.

I begin to fear that I shall not be able to be at that meeting
of mining engineers in New York on the 28th & blow about
their compass, but still have some hopes of being there. I hope
however will try & get it done by that time. My address will
be here, as above, for the next fortnight or so, at least; but some few
days after that time will be allowed for a letter to arrive

The mild weather and change of air seemed at once to
improvement of my health, so that I took a stroll as my usual
last Tuesday evening; and also being over the first hills here
has about restored my usual strength. At Charleston (W. Va.) as I came through
a boat just starting for Charleston (W. Va.), so I came through
about twenty four hours quicker than I expected in spite of the
delay. The season is more advanced here than at Philadelphia
and the [illegible] is [illegible] all the wood. with blossom
[illegible] are also [illegible] in this region; two fair sisters are [illegible]
[illegible] of the "Maryland [illegible]
[illegible] are [illegible]

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Cayetina, Boone Co. West Virginia, [illegible]

Mr. Lesley:

You may be interested in learning
[illegible] continued [illegible] after [illegible] Philadelphia
[illegible] it was cheerfully received by the [illegible] I have had
[illegible] came, and I my ordinary strength & by this time
my restlessness & the unavoidable expenses of travelling
[illegible] was rather tired that I did not like
[illegible] The weather was cold Sunday morning in
the Valley [illegible] grew warmer and warmer after
my arrival here. On the Kanawha I found the fruit trees
in bloom very finely and the leaves
[illegible] in Philadelphia the buds had hardly opened
here again now but very fine. I found a
[illegible] just [illegible] for Charleston, so I was less
[illegible] — I have [illegible]
chiefly in getting some familiarity with the rocks
I am supposed to [illegible], boring here and there
over on Lens Creek, and in visiting the underground
[illegible] and some of the coal pits that have been worked
with any kind interest to be able to determine the oil
& these beds to spread or fall [illegible] and their dip &
and anything like a [illegible]
that [illegible] may be [illegible] in the short time I have
[illegible] Poland Run are but ten or fifteen days work the
[illegible] some report must be got ready to communicate
[illegible] work is to close. The coal [illegible] seems to have come
[illegible] with the usual parting things & passed an ordinary
[illegible] the railroad. The baggage master objected at first to take
[illegible] board it must go at my own risk. I think a stand on the
[illegible] or hand bed [illegible] have been a [illegible]
[illegible] and am very glad I [illegible] with Virginia
[illegible] I find the [illegible] a [illegible]
[illegible] is no [illegible] but you [illegible]
[illegible] Perhaps [illegible]
[illegible]

Virginia, Boone Co., W. Va., 5 May 1872.

[illegible] Hall:

Fearing that my letter to Higgy the other day from [illegible] Philadelphia may have possibly given you some anxiety lest my health might have been injured by such journey, I write to say that on the contrary, I [illegible] still [illegible] [illegible] better during the journey, [illegible] [illegible] [illegible] [illegible] [illegible] evening [illegible] nearly as well as usual [illegible] and in nearly usual strength of [illegible] [illegible] by rail through Baltimore to Parkersburg on the Ohio, then by a steamboat down the Ohio and up the Kanawha [illegible] [illegible]. I left Philadelphia Saturday afternoon at four, [illegible] reaching the [illegible] noon, started in an hour down the river and reached Charleston Monday afternoon at five. [illegible] [illegible] [illegible] after dinner the next day and then came out here, [illegible] miles [illegible] in company with the Superintendent of the Cumberland [illegible] [illegible], Mr. Goodwin. The weather at that time was very warm but has been cooler since though still very fine. The [illegible] is [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] still more in advance [illegible] [illegible] no doubt. The apple [illegible] [illegible] in blossom a week [illegible] [illegible] woods are very gay with dogwood and the [illegible] [illegible], the yellow bloom of the [illegible] among others, [illegible] [illegible] purple blossoms [illegible]. I have to [illegible] [illegible] [illegible] hillsides a good deal and find it growing more agreeable [illegible] [illegible] my strength [illegible] back. I shall probably stay here a fortnight longer and then possibly go to New York and possibly come back afterwards for [illegible] work or possibly stay here longer without going to New York. If you should address me here, as above, you must allow [illegible] or [illegible] days for a letter to reach here; otherwise address [illegible] [illegible] and any letter will be forwarded [illegible] [illegible] [illegible] [illegible] [illegible]. I find [illegible] [illegible] more advanced here [illegible] [illegible] [illegible], the blacks are apparently well treated and [illegible] [illegible] [illegible] [illegible] [illegible] in numbers. The whites are also [illegible] and [illegible] [illegible] opposed to the separation of this State from East [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible] [illegible] [illegible] [illegible]

Pigeon, Grant Co., W. Va., 12 May, 78

Dear Helen:

For many [illegible] I have [illegible]
light I must not [illegible] I have used it a week for the first time.
The telescope is a very good one, but I find that I cannot read my
work with it at more than [illegible] hundred feet or so, about half the
distance I believe that I could read it with the telescope of my old
transit. I have great difficulty almost always in seeing the
cross wires; and I think it is because the eyepiece cannot be pushed
in [illegible] far enough to be well in focus for me. I can see them well
when I shade the objectglass with my white hand or with my
[illegible] [illegible] taken place sometimes in bright sunlight, but [illegible]
[illegible] [illegible] words. In the last case the rest perhaps
[illegible] the [illegible]. Sometimes I see them very well and [illegible]
[illegible] the telescope but they fade away in a few seconds. This was the case when
I first [illegible] to [illegible] and tried to [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible]
[illegible], and he [illegible] [illegible] the [illegible].
It is better in this respect as we were [illegible]. The [illegible]
[illegible] is not quite perfect in its sensitiveness; [illegible]
[illegible] [illegible] as against the [illegible] [illegible] [illegible]
[illegible] [illegible] of the screw the compass [illegible] as to [illegible]
with the proper [illegible]. The clamps and tangent screws seem to
me inconveniently [illegible]; but this is perhaps partly because
I [illegible] them yet. The [illegible] is good [illegible] of the compass
is a great comfort. I wonder why they could have never
[illegible] different. The weight of the instrument is not at all more.
[illegible] the improvements we talked of I would suggest instead of the [illegible]
[illegible] that I spoke of for the other pin, one of these very wide and
[illegible] the telescope on one side and having the [illegible] by and on
a simple equally light support swinging from the telescope [illegible]
[illegible] the right angles with the vertical, [illegible] with the rest as now
[illegible] through a slot of the fork, which I think would [illegible]
still as light. I would also suggest a very [illegible]
[illegible] [illegible] not cover up the [illegible] of
[illegible] [illegible] weight. I am
[illegible] [illegible] [illegible] and [illegible]
[illegible] [illegible] [illegible] [illegible]

I have handed a diffraction grating for the purpose of adjusting mirrors
so that the light diffracted from what are called the
only be parallel to the bed or at right angles with it
but the axis of rotation of the mirror must be parallel
to the bed. And the bed must be for the purpose
of the apparatus to be clamped to the mirror
by the screws, which I say goes on. Then by means of
the bed connected with the clamped part of the apparatus
joint of the [illegible] on one side of a tube and on
the other side, and that the mirror holder is
to turn round in its own plane for nearly 90° on the side end of
the apparatus that is away from the object glass and separated from
this joint. Lastly the mirror to be provided in the same way
with a hinge at one side and on the edge that is to be parallel to
the axis of rotation of the mirror. Then in adjusting if you find the
diffracted image of the cross hairs on the web itself, with only
the diffraction of the mirror the cross hairs
parallel on one side or the other. Then adjust the mirror and the
by [illegible] the diffracted image shall come by the

Peyton, Orme Co. N.M. Feb 4

E. Lawley,

Pres't Peyton Coal Co., No. 51 Broadway N. Y. City

Dear Sir:

Last Monday and Tuesday I spent chiefly in running lines upon the mountain northeast from the mine. One object was to ascertain whether the Colorado would come out so that a tunnel entry might be made there to test the coal. Mr. Gordon suspected this entry to come out at a certain bend of Lion Creek and does surmise that the coal found in the drift is the same that is mined and known as the entry coal on Coal River a quarter of a mile below the mouth of Indian Creek; but in supposing the rock split and the strata to have the course of the entry coal, and not parallel to an underground survey got from the coal in underground and aground mines, and in fact there would be no doubt nor misunderstanding in any way. The entry would come out at the surface and there the coal could be tested there or at any other point. The results would have spent on the left fork of Lion Creek about two miles and a half, the mouth running in a northeast direction or at right angles to their relative position in order to determine the identity and relative dip of the different coal beds and the dip. The dip seems to be slight towards the northwest and is a highly favorable circumstance in case a railroad should be built up the R. Fork. Lion Creek mines then would drain themselves. The bed of Yellow Creek coal, of which there was used seems not to be more than 3 feet thick and of inferior quality, a little different in quality from the bed of the mines on Coal River and three feet and a half thick above the Lion Creek coal 250 feet below. The Yellow Creek coal is the same bed as the Coal River mines below, and lies under them and about 250 feet above the Lion Creek coal.

[illegible] pretty uniform thickness at [illegible]
[illegible] points, although differing in quality in the [illegible]
[illegible] and extend no doubt over [illegible]
[illegible] coal, containing on the 5760 [illegible] more or
less 100 acres, and perhaps 200 or 400 more. 530 acres [illegible]
[illegible] the thinner beds, and very likely other beds quite
as thick; for the openings are still very few and widely scattered
[illegible] much to the latter yet known, because it is necessary
to run lines to the distant points in order to make out a connected
section of all the coal beds known. And a section for the
[illegible] to be published, if indeed any has ever been
[illegible] would be a most useful guide to explorations
for knowing from the position of any one bed of the section it
would be possible to tell almost certainly when all the others might
be found. I hope in the next year, & two more
[illegible] to work towards getting such information as soon
as possible by undertaking up the Right Fork but with little to show
for it. This will also determine the thickness
[illegible] have not succeeded in making many openings on the
coal; but its geology can be known pretty well from the
[illegible] made and from the knowledge gained [illegible]
[illegible] acquaintance. It is also pretty safe to say that
[illegible] beds mentioned as on the 5760 acres will [illegible]
[illegible] on the 750 acres tract ("A") and the 30 [illegible]
[illegible] the thickness may vary at different points, but [illegible]
[illegible] Kanawha coal seams to vary but little on the whole in [illegible]
Nuttall coal, the Cedar Grove or Lens Creek coal, the
[illegible] Settlement, and the Mr. Gordon three [illegible]
[illegible] Of the values of the 10 or 12 Cedar Coal lands which [illegible]
[illegible] Quantities that will run three feet or three and a half [illegible]
[illegible] I found there seems to be no doubt here that the [illegible]
[illegible] mines are used in forging iron ores with [illegible]
[illegible] favorable circumstances of transportation. And it will be useful many years
[illegible] and that there seems to be no other kind of profitable [illegible]
[illegible] and that the success of the operation. Its success may be
[illegible] by cooperative [illegible] of the [illegible] and cheap transportation of [illegible]

Keystone, Bronze Co. Ill

New York City

Little Rock & Ry. Eagle Mts. Arkansas

My dear Sir:

Your very welcome favor of the 7th inst
that month came to hand only a few days ago and I
was much pleased to hear again from you directly. If you
should come East this summer & have an appointment
in Washington and the appointment
Philadelphia and I have still
from now and then. One that
the good news that he is well and enjoying
Utah and I am heartily glad that he
is prosperous and that he will find
than that of Superintendent. All the
my affairs interests are very much and
are very much pained to learn only
that time to my excellent friend Mr Meacham
and also to the unfortunate Mr Head upon
Mr. I
plan of
meeting
Mr.
Mr
and

ready working a bed of coal from Cannel Coal [illegible]
[illegible] Limestone [illegible] Beds. All the Beds are [illegible]
[illegible] at present. The Shipping station is by mine [illegible]
[illegible] down by Loch Stevens at the Coal River by the [illegible]
[illegible] Navigable about 25 M[iles] to the Kanawha and down to [illegible]
[illegible] this & Cincinnati and elsewhere. The Canal boat [illegible]
[illegible] transported 1500 bushels to be more than [illegible]
[illegible] Limestone Coal. The shipping has a great many delays [illegible]
[illegible] inconveniences especially in the Coal River and [illegible]
[illegible] about the mining was to stop for a while and [illegible]
[illegible] for six months for lack of water for the boats [illegible]
[illegible] a sufficient time to work at digging out beds at [illegible]
[illegible] times. They are talking now of an active railroad this [illegible]
[illegible] from the Chesapeake and Ohio R. R. on the principal [illegible]
[illegible] by Covington & the Ohio River through the Kanawha [illegible]
[illegible] called for here at from five to ten dollars an acre, [illegible]
[illegible] land, from twenty to twenty five dollars. Along the streams [illegible]
[illegible] is good land; the rest is all very hilly and [illegible]
[illegible] extremely steep to a height of six or eight hundred feet [illegible]
[illegible] sometimes a flat on the hills. But the roads all [illegible]
[illegible] flat. The country is very thinly settled and is mostly [illegible]
[illegible] with forest. Surveying in such a rough country and [illegible]
[illegible] being over such hillocks is pretty hard work, perhaps [illegible]
[illegible] among the windfalls and barbarous of Cape Horn.

We speak of having seen a Natural Bridge [illegible]
[illegible] by the rains in Indiana after a dry season was finished [illegible]
[illegible] first. Perhaps the result may be somewhat alike; but [illegible]
[illegible] hardly think that the action of the Caves is very [illegible]
[illegible], and I saw nothing myself to show that it was. The [illegible]
[illegible] [illegible] handling the Cargo and other works and [illegible]
[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] again, but I should think would [illegible]
[illegible] the boring effect of ice formed in the Caves. The rain [illegible]
[illegible] have great effect [illegible] the Coal Measures [illegible]
[illegible] [illegible] very dense, and especially [illegible] [illegible] [illegible]
[illegible] agreeable acquaintance among [illegible]
[illegible] of Ohio and [illegible] [illegible]

Peytona, Boone Co. W. Va.; 12. May [illegible]

My dear Poole:

Your very welcome favor of the first [illegible] with [illegible], gives me pleasing news that you have your hands full of business, and that your health and spirits are both good. What you write of [illegible] is entirely true and quite sad. I was told some weeks ago by a mercantile friend of mine that [illegible] the [illegible] [illegible] and the like went over to [illegible] in Capron's works or rather with him and succeeded in getting of [illegible] [illegible]. Mr Capron [illegible] making a "big thing" [illegible] the [illegible] would pay a profitable salary and [illegible] [illegible] some money in this charming country, for it [illegible] [illegible]. Meanwhile I am [illegible] [illegible] [illegible] in making [illegible] of [illegible] [illegible] things and [illegible] [illegible] [illegible] the works in full and regular [illegible] [illegible] the [illegible] bids however been [illegible] for England, and the expenses of them are [illegible] [illegible]. [illegible] working now but a rough [illegible] [illegible] possible of [illegible] to the same [illegible] [illegible] that will take some weeks. The special [illegible] [illegible] in the [illegible] cannel coal that is mined here. The [illegible] [illegible] not than forty inches, seldom as much as [illegible]. The shipping is inconvenient, by river [illegible] [illegible] by [illegible] steamers, partly by slackwater navigation, and [illegible] interruption of [illegible] five months in the summer [illegible] the [illegible] [illegible] for [illegible] work. There is [illegible] [illegible], and this partly with reference to me [illegible] and the [illegible] through that I am here. [illegible]

[illegible]

Kyles Ferry Ky. May 12th 1862

My dear Father:

Here I am again spending Sunday after
having spent Sundays over on Elks Creek some ten miles
from here where I have been ranging and where I
have stayed two & work a few days longer. There are
one hundred men there to be surveyed and
much more here; but there is less money & more
work here. Mr. Sanderson is expected here in another week
and I shall then know better if I shall stay here longer or
perhaps go on a Railroad [illegible] his person as my
assistant. There is a [illegible] work to
be done here, and expect it will be done by
[illegible] I do not know whether the Company will feel inclined to
have me with them through, for that will take
two and a half months in proportion to the
other field work & pay. While away from here this
I stayed all night at a village named Brownstown, two
miles from here on the Kanawha River ten miles above
Pt. My landlord there proved to be a new species of
[illegible] I encountered in all my travels; he not only
[illegible] his meat with his knife, but
[illegible] to help himself to meat or other victuals with. For
supper he finally cut off a piece of corn bread for me with it, and
then cut off a piece for himself with the same knife. [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]
[illegible] [illegible] [illegible]

Charlestown, Kanawha Co. W. Va., 14 day 9th

P. E. Lawley

Sec'y Eclipse Coal Company No. 38 Broadway, N. York

Dear Sir:

Your welcome favor of the 6th inst came to hand
[illegible] being the first intimation of Mrs. Prudence's
[illegible] with a telegram he had just received, the
[illegible] and examination time. I leave Monday for
[illegible] "Said" Evidently here is but one
[illegible] and that would seem to be "he is dead"
[illegible] so your request for more time would be
[illegible] more days at least. It will be very useful in settling
[illegible] some twenty seven points. Still, I will give you more
[illegible] upon at the time of writing my letter. The bill is a
[illegible] surveying in less
[illegible] out in an Friday [illegible] given a schedule for
[illegible] needed office work. There seem to be three workable
[illegible] on the Elks Creek tracts; but the lower
[illegible] a half thick in some places
[illegible] two feet and a half at the place and so down
[illegible] third vein. At 150 feet above it is the 4 foot
[illegible] coal of the Kanawha, three feet or more thick
[illegible] but two or three places, but perhaps not persistent
[illegible] channel character and, even when it is, inferior to the
[illegible] coal. At fifty feet above that is a bed of very fine
[illegible] bituminous coal measuring at different places from
[illegible] nine to forty seven inches, the richest bed that I have seen
[illegible] which could in former letters, or semi-cannel. The lower
[illegible] beds yield also very good and fine bituminous coal
[illegible] to [illegible] than the uppermost bed. The upper bed
[illegible] which I should be mentioned is less fine
[illegible] The [illegible] seem after all to be
[illegible] but [illegible] extend; it is very gentle and
[illegible] probably be [illegible]

the three beds underlie [illegible] portion, probably two thirds at least of the nine square miles of the two basins (18 + 9 = 27); the upper beds commence [illegible] than 80 feet above the lower beds on the hill sides. Every foot in thickness of a coal bed yields about a million tons to the square mile. Reckoning then each of the three beds as averaging 4 feet in thickness and the lowest one as workable on only one half of the 9 square miles the whole amount of workable coal is seen to be (2×18 + 9 = 45) forty five millions of tons. Allowing for waste of all kinds and thick pillars in working, there would be left thirty millions tons for consumption; or three hundred years' work for a colliery of a hundred thousand tons, or twenty five years' work for a dozen collieries. Nearly or quite the whole of this amount would be accessible without difficulty, for the dip does not seem to be unfavorable for operations on the Left Fork as well as on the Right. Only the [illegible] of the lower bed which lies at the uppermost part of the two forks of the Creek would be below the level of the Creek and could be got at only by [illegible] pretty long entry; but some of the upper beds could be worked [illegible] portion that has already been [illegible] Knowing as you do the price at which coal land is offered you can reckon the cost of coal at the pit mouth in effect; but allowance should be made for interest on the price of the land up to the time when the coal is actually mined, three hundred years, or twenty five years or whatever it may be. Some allowance too should be made for rise in value of the commodity coal from year to year, and this in your opinion may equal the interest just mentioned or even exceed it. Of course after the last mine is mined will cease the ground or any value of the land is mostly covered with forest which would be of [illegible] for timber; on that point Mr. Godwin's opinion is worth far more than mine. There is but little flat land along the creek and its forks but there would be enough probably for the needful works and villages. The general question as to whether coal mining beds of these can be worked at a profit has already been touched upon. I think they can be worked with a little more care than [illegible] of the more valuable upper beds of [illegible] of the immediate vicinity of Pittsburgh, but I have not had [illegible] I am sure that [illegible] Thank you [illegible]

Brownton, Kanawha County Va. Aug 19th
1852

My dear Father:

This place is on the Kanawha River ten miles above
Point Pleasant, and is a dozen miles northeast of Neptune.
I left Lewisburg on Monday last, and this
is Thursday and I stay here to-night to-morrow,
Sunday, here intend riding all the way to Neptune
& back. Why in Lewisburg is the new species whose discovery I
announced to you, but I feel along very well; he and his wife make
me welcome as pleasant time as they can, I avoid both of them
as much as possible and as there are no other
houses of public entertainment in the village I
have to put up with them. My own feet is pretty well attended to
now, since I left Lewisburg I have walked very little, and
have generally after my day's work
bathed my feet in cold water, which I
think, together with
a week before and the best
I should have
Methodist minister in
. He and his
is a fine
deepened much from
and I have been interested
field rising, two feet last night
and as mine under, as
from here up the river
I left and was
by steamer
and is from the Turkey River
left Lewisburg at the Lick house, three miles from town, on
Lick Creek, and daughter of the first settler of
here a hundred years ago. He does not live
it made him only comfortable. I
bought some
vegetables
I believe my time

Brunstetter, Kanawha Co., W. Va., July 9th 72.

My dear Keller:

I forgot to mention before, that in case you should sell any solar compass it is required by the law that they should be marked: "Patented, 18 Aug. 1871." Think the date, but it would be worth while perhaps, to verify it by reference to some list of patents at the Franklin Institute. The number has been lost sight of.

Time has been less humble. It has blown cross hairs than before; but they do not seem to be perfectly concentred (often crossed however); and they seem to jump a little on the stadia, not on account of the coating, though it might make your lines blend in ends.

The time for the survey seems to have been lengthened according to a mutilated telegram that came yesterday; so that I may have some time yet in which to make the examination as full as desirable.

This place is nearer than Peytona. I came up the river on Friday, and I am spending Sunday, perhaps a few nights more. My address is still Peytona, Boone Co., W. Va.

Yours very truly,

Benj. Smith Lyman.

Brownstown, Kanawha Co., W. Va., 20 May,

Post Telegraph Operator
at Charleston, W. Va.

Dear Sir:

Please telegraph the message below at your earliest convenience to Washington. If there should come an answer in the course of the day you might send it to me by the train in the evening unless there should be some more convenient opportunity. In case you should see Mr. H. W. Godwin coming this way you might send me the message by him as he would be glad, I know, to see me. My address here is: Care of Mrs. Lewis &c.

Yours truly,
Benj. Smith Lyman.

Telegram:

To Professor Joseph Henry,
Smithsonian Institution,
Washington, D. C.

Please state terms of offer fully. Salary, specie currency? begins when? Expenses paid or not? Is Dr. Capron's assistant or independent?

Benj. Smith Lyman.

Brunnetown, Kanawha Co., W. Va., 20th [illegible]

J. E. Lee Esq.
Sec'y Keystone Coal Co. 10 & 38 Broadway, New York.

Dear Sir:

Since writing you yesterday I have found near the mouth of Kent the Keystone Main Cannel is the same as at Kent has been opened on Lens Creek about fifty feet above the mouth of the three beds I have described as occurring on Kent Creek. This still higher bed measures at the outcrop by [illegible] I have found it well opened on Lens Creek [illegible] cannel. At the same [illegible] under land has there only five inches of cannel. At the mine near by there is a thickness of eight inches and a half of cannel. The lowest bed is good bituminous Coal. At the [illegible] have the same bed (next to) yields fifteen inches of cannel. I have not seen it yet. The bed is so high up the hill [illegible] been little opened; perhaps in other spots it may [illegible] and will be [illegible] because it can be tried [illegible] [illegible] provided the main [illegible] still the workable [illegible] [illegible] [illegible] [illegible] possible, however, that [illegible] [illegible] [illegible] of a good workable bed on [illegible] for the Pittsburgh bed may be only about [illegible] hundred feet above the Keystone Cannel [illegible] the hills seem high enough for it. Of course it would [illegible] that a bed so high up the hill should [illegible] opened up. In Western Pennsylvania and Northern West Va. this bed measures from seven to fourteen feet thick and a part of it even of moderate size would be valuable. Not far above it are two more good beds. No very strong [illegible] of finding it here should however be entertained, as it would quite likely have been hit upon somewhere in the hills even high up, and as it has not, the hills are probably too low.

Yours very truly,

[illegible] Smith Lyon.

Brownstown, Kanawha Co., W. Va.

My dear Mr. Seeley:

Your favor of the 4th inst. did not reach me until yesterday morning in the fill owing to my having left Sunday here instead by mistake & depending on the Japanese offer to take me for an hour or two. I doubt very much whether money can be got in my favor at present. I might & could hardly, if but I feel as I do. I am a little more inclined to [illegible] and even as I might not be expected. But I am writing to Capt. mentioned before and I sent to Charleston (ten miles) for [illegible] a telegram for Prof. Henry asking him [illegible] & terms yesterday, whether the salary & [illegible] it would be for this when I have been & when I am going whether the expenses were to be paid or not (your friends having to pay my own voyage out, a party necessarily [illegible] I did not quite understand) and whether I was to be [illegible] I have indeed made [illegible] of everything like contact with the Japanese Government [illegible] at once difficult with Capt. Brooke, though this will be an insuperable obstacle to my taking the offer. It seems this year as Ladyman's offer did [illegible] the offer in question during the whole voyage [illegible] I did be; but if the difficulties during the whole voyage [illegible] is possible, it is a little better than would probably have ended to Ladyman, there being here I had been a child [illegible] for me and many that a good deal of work would [illegible] of present engagement. The parties in New York who [illegible] in Mining matters seem intelligent [illegible] official well a geological survey now that they [illegible] its results, and I have thought it impossible that they [illegible] some rich some thorough official survey for a [illegible] of the properties now working or to be worked. It is [illegible] contains over sixty thousand acres and to do the above [illegible] such a survey would take a long time. I am [illegible] gate coals near [illegible] will [illegible] between the [illegible] and [illegible] the Northern [illegible]

I'd be glad for a decline at any rate Mayhew's [illegible]
[illegible] circumstances at present but perhaps I would not
[illegible] at home for the present. — I am glad you have
[illegible] out the name for the disease I had. My only objection
to name is it is not so short. Why not call it varicella-
[illegible]-bellyache-ah-I-have-pneumonia? But
[illegible] you are right that I had the same epidemic disease that
[illegible] had and that was all. and no doubt it would
[illegible] me off as it left the lady doctor.

No answer has come from Prof Young today and perhaps
[illegible] will answer by mail & he may be away from home, or
[illegible] may come tomorrow. As you have spoken of the
matter to Fraser perhaps he may have become quite desirous
of taking up the offer; in that case it would perhaps hardly
be worth while for me to [illegible] it at his hands. But very
likely with a young wife and a prospective [illegible] on his hands
[illegible] prefer to stay at home rather than go roving about
and with his settled prospects at home it might be for his
[illegible] be a good start as to never take. For me it [illegible] my
[illegible] line; I shall be glad of the chance to study these new
[illegible], and if may be my only chance I do so. As to
[illegible] of business prospects for me it would perhaps on the
[illegible] help rather than otherwise. Nothing it would lead up
[illegible] connection here it might lead to some introductions
and would lead to business afterwards. Perhaps even I might also
[illegible] something more to [illegible]. Since my stay in this region I
[illegible] become more than ever before impressed with the feeling of the
man's duty to make public the scientific facts he acquires. And
[illegible] in regard to this region and I have [illegible] my work
[illegible] much. Perhaps some things in Hayter's Yorkshire Handbook
[illegible] novel that I am reading in the evenings (when not writing letters)
[illegible] and the same feeling. —— Please give my love to the
[illegible] and the girls. — If you [illegible] telegraph, drop a line
[illegible] W. Va. [illegible] of Mr. H. W. Gardiner. — among other things I would
[illegible] how much time I could have while up my stay here
[illegible] after getting out for Jefferson and how long the [illegible] and
[illegible] would take.

Very affectionately your [illegible]

Charleston, Kanawha Co. W. Va. 26th [illegible]

My dear Father:

Your favor of the twelfth did not reach me until the twenty [illegible] an illustration of the postal advantages of this region. I [illegible] your [illegible] about [illegible] was quite [illegible] by the [illegible] that [illegible] my [illegible] a [illegible] in [illegible] part of the [illegible] [illegible] as usual and [illegible] spend in surveying [illegible] steep hills and [illegible] each day [illegible] [illegible] [illegible] monthly [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] shared some of the [illegible] in going back to [illegible] [illegible] [illegible] [illegible] [illegible] which have been made.

Last Monday I [illegible] [illegible] [illegible] [illegible] Prof. [illegible] authority to [illegible] an offer from the Japanese government for me to go to Japan [illegible] [illegible] [illegible] [illegible] [illegible] by advice [illegible] [illegible] [illegible] out. I telegraphed [illegible] [illegible] [illegible] [illegible] [illegible] for further information [illegible] [illegible] At first it seemed to me [illegible] [illegible] [illegible] [illegible] it seemed perhaps [illegible] [illegible] [illegible] [illegible] to study the geology [illegible] [illegible] only to me but to [illegible] [illegible] the expenses in Japan [illegible] [illegible] than the one I took for India, and [illegible] been willing to take up with a year ago. The climate [illegible] better than the Indian [illegible] [illegible] the less civilized character of the Japanese [illegible] [illegible] of my hesitating to accept the idea of going at [illegible] you say so often of not expecting to live long [illegible]

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[illegible] no good cause for such a prospect and I believe you [illegible] made similar predictions for many years. Indeed [illegible] might go to Japan and return several times within your life [illegible] with [illegible] that it is now but a journey of a month or [illegible] Yokohama. But, altogether aside from the pleasure [illegible] should both find in meeting each other, the progress of my geological studies and the usefulness of my work with [illegible] are matters of hardly less interest to you than to me; [illegible] is your success. Besides that, the additional [illegible] of hearing [illegible] me of those outlandish parts may [illegible] balance the [illegible] I might have to pay if [illegible]

I suppose they would wish me to sail from San Francisco by [illegible] either of the first of July or of August. My [illegible] may perhaps be unwilling to let me off [illegible] the length of the engagement was indefinite [illegible] same [illegible] with to have more work done [illegible] [illegible] indeed might be lonely [illegible] [illegible] much [illegible] [illegible] with all [illegible] wanted done when they [illegible] [illegible] more [illegible] to [illegible] [illegible] in order to [illegible] [illegible] accepting the Japanese offer. [illegible] well, [illegible] through [illegible], and [illegible] [illegible] if it does. I have [illegible] [illegible] again [illegible] my acquaintance [illegible] [illegible] [illegible] even if [illegible] [illegible] not [illegible] lengthen my engagement. [illegible] in addition to what I had before [illegible] the [illegible] acquaintance will give me [illegible] [illegible] I [illegible] desire; for I should be [illegible] [illegible] for [illegible] affairs at [illegible] [illegible] two or three papers [illegible] [illegible] done in the way of advertisement, but [illegible] [illegible] public. [illegible] done no doubt more real labor [illegible]

[illegible] has just come to my [illegible] [illegible] this evening from some friends here [illegible] [illegible] in the [illegible] [illegible] [illegible]

[illegible]

Binghamton, June 15 1864

Hon. Telegraph Operator
Washington, D.C.

Sir:

Please forward the following dispatch
from Chenango, Broome County, and oblige

Yours respectfully
Benj. Smith Lyon

Binghamton, June 15 1864

Hon. Telegraph Operator
Washington, D.C.

Sir:

Please forward the following dispatch
from Chenango, Broome County,
and oblige

Yours truly,
Benj. Smith Lyon

Cyrus Grove Co. Mo. 8 June

My dear Mackay.

Ypsilanti, Mich. Feb. 1st 1870

Dear Comrade:

Your favor of the 19th ult. reached me duly & right glad I was that I was by it how you were getting on. [illegible] that my [illegible] Pocket for your hand I cannot give you the information you wish for about St Clair flats. Old Hay Lake and Carp Bay and Anchor Bay roads; but would give it cheerfully if you were in my power if I were at home. [illegible] a year ago or a few weeks ago I [illegible] there. I still see what can be done in Hallock. But I greatly fear that such information as I can give it will be of no more value to you than to be entertaining. If you can spare any and [illegible] may be entertaining. If you can spare any and [illegible] by the thing and [illegible] I will give you [illegible] I still had a good business [illegible] for you, for many years [illegible] by a paid [illegible] and for it would lead you into [illegible] a quiet & home loving life that you [illegible] adapted and [illegible] to bring you to an orderly, regular [illegible] habit that would be [illegible] to both your bodily and moral health. It [illegible] an [illegible] would be a little better [illegible] gambling for you. I am very glad [illegible] your health is so much better than formerly and hope [illegible] your prospects in regard to it ~~may be~~ will soon be. [illegible] a word about doings in your neighborhood interests me much, but many of the names of men and [illegible] that you mention are [illegible] to me. Please remember me kindly to the [illegible]. I am here in the Counsel and making some [illegible]; but am thinking of starting again for a distant trip abroad, though [illegible] may yet [illegible]

[illegible] Yours Truly

Peytona Boone Co. W. Va. 6 Jan

Dear James:

Your favor of the twenty sixth of last month has but just this evening come to hand, & your wish in this regard shall be complied with. I enclose you herewith a check for fifty dollars, and hope it may reach you in time to be of service. I should be much pleased that Ross will be with you during the coming year; but in case that should not be I shall probably be in Washington myself in March next & while there if I can find time will call & make it my business. Please write me very soon & let me know if you receive the money safely. I sincerely hope for your sake that your prospects in that regard may continue & multiply as I am glad that you are to be employed in the improvement of the Ohio.

I wish I could have met you within a very few days, but I fully intend to be at Point Pleasant next month & then we will have a long talk over matters & things.

Mr. J. L. Ross is dead & I have lent the money to Mrs. Ross & a number of other persons & have only a few hundred dollars left. I will write you more fully in a few days. Remember me kindly to Mrs. Hughes & the children. Yours truly

Peyton, N. Y. 7 June '72.

My dear Poole:

It gives me great pleasure to make you hereby acquainted with my valued friend Mr. J. E. Lane of [illegible]. He wishes, as I understand, to have some correspondence with you about silver mines, and I trust it may lead to the profit of you both.

Yours very truly,
Benj. Silliman

Peyton, [illegible], 7 June, 1872.

Dear Mr. Bolt,

Your letter of the [illegible] came duly to hand [illegible] am much obliged to you for [illegible] asked to have done. Please [illegible] forward my [illegible] at my office [illegible] within a very few days [illegible] but it will [illegible] possibly [illegible] to see you [illegible].

[illegible]

[illegible]

[illegible] work here is almost done, and I hope to leave
[illegible] perhaps a day or two later, and travel
[illegible] this week perhaps by [illegible] day or Friday
[illegible] morning and [illegible]
[illegible]; but as it is [illegible] we shall be
[illegible] have all rested not have been [illegible]

[illegible] and during [illegible] Hill and [illegible]
[illegible] and I shall [illegible] time [illegible]
[illegible] heard many of them before. He has [illegible]
[illegible] and has left in Kansas, where he was [illegible]
[illegible] and in Oregon. He [illegible]
[illegible] many American [illegible]
[illegible] I should [illegible]
[illegible] his permanent [illegible] and [illegible]
[illegible] Kansas [illegible] [illegible]
[illegible] would not [illegible]; but I noticed some [illegible] of persons
[illegible] many Americans were here [illegible]
[illegible] Oregon is not with [illegible] and my wife [illegible]
[illegible] I [illegible] [illegible]

[illegible] pretty cool here [illegible]
[illegible] [illegible]

Peytona, Boone County, West Virginia, [illegible] June [illegible]

Mr. Vital,
Élève ingénieur &c.

Dear Sir:

Your valued favor of the twenty-second of last month came to hand only last evening.

I was much gratified that my work in the Pennsylvania should be thought worthy of notice in the Annales des Mines [illegible] very much for the trouble you took about it. The lack [illegible] of a general map with the report [illegible] which you [illegible] led to some mistakes in your own map of the "alignments" of the oil springs; and I have been thinking of making public at my earliest leisure a correction of them, if possible in the same periodical. The geology of the Pennsylvania Oil Region in fact not only shows that the oil springs are not arranged at all in straight lines and do not give even that evidence in favor of the emanation theory; but it furnishes by its curved axes a conclusive argument against some points of de Beaumont's theory of the elevation of mountains. A curved axis, as I understand that theory, would be impossible or would require for its formation an infinite series of elevations. Such axes are numerous in America [illegible] and have long been well known; and geologists here have therefore put no faith in the theory that there is a distinct epoch for each axial direction. In the limited district to be sure there is no [illegible] generally a [illegible] parallelism between axes of the same age. — I remember of the [illegible] des Mines that contained your memoir [illegible] [illegible] so late that the paper I sent you was already [illegible]

I am only here in the [illegible] coal region to make [illegible] [illegible], and my address is [illegible] No. 135 South [illegible] Street, [illegible] [illegible] [illegible].

[illegible] Sir, [illegible] very truly yours [illegible]

I do I expect this long talk may
[illegible] a letter [illegible]
[illegible] of this
[illegible] long telegram, all received
[illegible] your own revival.
[illegible] all I began [illegible] my
[illegible] me the paid by me [illegible]
[illegible] to three years if not longer, and
[illegible] from lead of the Commission. Would [illegible]
[illegible] will [illegible]
[illegible]

If it is really meant that I must pay my expenses personally
and the like, it is hardly [illegible] me to
[illegible] of visiting Europe for [illegible]
[illegible] and the early [illegible] and making
[illegible]

[illegible] year is meant, it is possible this
resignation might be [illegible]
[illegible] for three months [illegible]
might [illegible] be granted. [illegible]
myself to stay as long away. I will
[illegible] and learn more
personal interview with Mr. Hunt.

Your affectionate bro.
Benj. Smith Lyman

[illegible] 1872.

Postmasters Office, [illegible]

Prof. Henry
Smithsonian Institute
Washington D. C.

Dear Sir:

Your favor of the [illegible] will be duly attended to. I am sorry that the regulations of the telegraph office should be such that your signature should have to be written every time.

I leave this place next [illegible] day or two and shall stop at Washington as my route home, and expect to call and after making your acquaintance that you may [illegible] suggest can give you any decision in regard to the Japanese proposal. You may rest the gentleman is [illegible] his own expenses, as I understand you. He would have to pay the expenses of his voyage out according to the [illegible] a point that I have mentioned, I suppose, by way of exception, and a strange one it is too as it seems from the expense of sending him to Japan for foreigners in Japan and the expense of travelling and [illegible] of Japanese as he is would more that it would handle to pay $2[illegible] per mile by 20 miles all expenses were paid as proposed by Russel Co. in last year.

Hoping, however, to talk with you within a few days, I remain

Very truly yours

Benj. Smith Lyman

Wytheville; 7 June 1872.

H. McGuire Esq.
Charleston W Va.

My Dear Sir:
Your favor of today is at hand with its enclosed letter, and I am very much obliged to you for sending it out. My [illegible] last wrote an answer to a telegram that I sent two or three weeks ago, and he encloses an answer he had received by letter and addressed to me with the [illegible] of [illegible] name. This was owing I suppose to the neglect of the telegraph operator at [illegible] or somewhere else in [illegible] to add that part of my name to the signature. The letter has probably fallen into the hands of our friend Col. [illegible] or perhaps still lies at the post office. Will you be so kind as to inquire at the office for a letter addressed to Benjamin Smith from the [illegible] —
— I did not succeed yesterday in getting the big copper [illegible] but [illegible] but they are lying in its [illegible] I think and will [illegible] it fully upon tomorrow I hope. In that case I [illegible] to start from here Tuesday morning and [illegible] evening of tomorrow near [illegible], and [illegible] you [illegible] way to [illegible]. [illegible] of the [illegible] is [illegible] that the bed I told [illegible] to look for above the big [illegible] [illegible] five or six inches thick here, and [illegible] [illegible]. I find [illegible] that there is a [illegible] [illegible] this high [illegible] bed and the [illegible] [illegible] till another day.
Yours very truly [illegible]

135 South Fifth Street, Philadelphia, [illegible]

Dear Peggy:

Your favour of the [illegible] of this month came to hand in a week. If I [illegible] to Japan I will as you request return you the letters I have from you, though with great reluctance. The idea you suggest of somebody looking through them after my death (or even before) [illegible] for a biography of me is quite flattering, but even if they should be [illegible] from that or any other cause it seems to me they could do neither you nor your memory the least honor. I have thought that after my death some very near [illegible] might feel a lively interest in such letters; as I am sure we [illegible] in such a series of letters from any of our ancestors. The letters [illegible] and as you read them the writer lives again; to destroy them would be like taking the writer's life, & destroying them yourself would in a manner be murdering the friend. It seems to me [illegible] that you should feel so sensitive about the future reading of your letters by perhaps one or two indifferent readers whom you care nothing about, while you are so far from sensitive in regard to what may be [illegible] [illegible]; for with me it is just the other way, and I [illegible] and unblushingly [illegible] myself of all that [illegible]. Such a record is no doubt far from flattering to the writer, but if rightly read must be just, and that is what we ought to expect even [illegible] the occasional wrong reading among the very few that will ever be [illegible] can hardly do the harm of misunderstood and therefore misjudged speech. — As to the gas fixtures I have engaged none here, and your plan for buying them at Northampton seems to be a very good one. — I left Keytesville(?) at six o'clock in the morning last Sunday morning and reached Brownstown(?) about noon, having there the [illegible] on the way. From Brownstown I started in the steamboat for Parkersburg at half past four Monday morning and arrived the next morning at eight. On the way at Charleston, ten miles below Brownstown, Mr. [illegible] handed me a telegram from Mr. Seeley(?) to the effect that I was greatly wanted at Washington; Prof. Henry also telegraphed a letter & message that [illegible] me. At Parkersburg I had to wait until evening for a train and improved the opportunity of going by rail a dozen miles to Marietta [illegible] the College there, [illegible] affairs compared even with [illegible] [illegible] manners. The next morning I reached [illegible] and [illegible] He said the Japanese would not pay the salary proposed and [illegible] but as I would not [illegible] for long he said he would come [illegible] and [illegible] with me [illegible] [illegible]

135 South Fifth Street, Philadelphia, May 6th.

S. E. Law Esq.
Sec'l. Raytown Cannel Coal Company,
No. 58 Broadway, New York.

Dear Sir: I left Raytown last Thursday morning early, and arrived here by way of Parkersburg last evening. I spent a few hours yesterday in a trip from the Kelley's Creek to Washington.

On Saturday the opening of the Pittsburg bed above the Raytown mines was at last finished after an unusual amount of digging, and the thickness and quality was satisfactorily determined. The bed is only four feet thick at the point and one half of it is of poor quality. - On the way to Monongahela I visited the principal openings of the. They and found the Pittsburg bed in the hill opposite Mrs. Mabyn's actually five feet and a half thick as he reported; but the quality was not well to be seen as he had not gone beyond the rotten coal of the outcrop, and perhaps hardly to the end of the coal. The coal however looks pretty well as to be seen in the opening on Lens Creek and at Raytown the last week I probe that the Splint (Wood Hoppin) Coal of Lens Creek is the same as the upper Cannel of the Raytown mines, twenty feet or so above the main Cannel at Raytown. The bed about thirty feet above the Pittsburg bed was also found at Raytown and proved to be only five inches and a half thick, as it is near Wheeling; but in the bottom part of West Virginia nearer Monongahela it is four or five feet thick and good quality, so that it was worth working.

I hope to send you my Report in full in a week or ten days time remaining

Yours very truly

135 South Fifth Street, Philada, March 17

S. S. Lee Esq.

Dear Sir:

Your favor of yesterday is at hand & in reply to the Lens Creek Report if possible by 2 o'clock P.M. I think I can do so, but shall be able in that case to do so I had hoped in the way of illustrating the Report & make the meaning clearer, if indeed I can make it at all. Still I will try & make the report as clear as possible. In order to hasten matters I will (if I can) get a certain very trustworthy friend of mine here to mention the name of the "Splint Coal" we talked of. He Pertains & will follow close upon the Lens Creek one, if he can get with it.

The trial pits made after you left Pertana Mines very prodigy in the amount of coal discovered were very satisfactory in settling decisive some doubtful & disputed points in regard to the series of Coal beds there.

If you were more of a stranger I should begin to think there was something suspicious in this frequent meeting by you of the fair "pommettes"; I never encounter in my visits to Rochester and Palmouth, and it is fine.

Very truly yours.

Benj. Smith Lyman.

135 South 3rd Street Philadelphia, 24 June, 1

My dear Barbara:

You must welcome your little [illegible]
[illegible] for me here as my return from Ill will [illegible]
Virginia later in the week. I have been hoping to hear
more than I have as I think just now it would be well
I could meet you in Baltimore & proceed to Concord di-
rectly and avoid the publicity. But alas, I am
to make efforts and hope as quickly as possible, and
N. & W. Carolina at the [illegible] again, if
do not go to Salem. You must know, the Superintendent
offers me [illegible] with a better offer than last year, but
not good enough; as my refusing it has caused the
Board to [illegible] for, and I expect to hear this week sometime.
this decision is to make. The term of service proposed
is for three years if not longer, a much [illegible] engage-
ment I should prefer. There will be a fine class for
me this year will when you be [illegible] and
[illegible]! I have heard nothing more about the Chan-
ning must have arrived in New York by this time
I suppose, and I must write to Eugene; but I fear
my uncle will not be there a month of Sundays
so that he can spend time with me before I am off
Carolina. As to Wendell & Warren Newton perhaps you
will not be aware. Pray as to Wendell — Can
tell me anything about Mrs. Helen Lincoln Wendell
[illegible] now or [illegible] at Warren & Elyot? She has been
recommended to Miss Lyman as a teacher of English Studies
as I have heard you think [illegible] Warren I would like some
[illegible] information about her capabilities if you can
believe Miss Warren has made an application to Miss Lyman,
[illegible] the Vassar teachers made the recommendation. As
[illegible] I know about her appearance and manners as well
as [illegible] teacher. If you could drop a line from Concord
me. Please give my regards to your wife

With affectionate [illegible]

35 [illegible]

[illegible]

[illegible] Esq.

[illegible]

Dear Sir:

Your telegram came to me early this morning telling me that my entries and proofs and drawings. I will do so, but will use as much legal cap as possible. I had already put the papers into the hands of my friend, and expect to report to morrow. This afternoon I engaged the services a little on the drawings upon which you intend, but that happened & came away, and hope at any rate to get a little practice in the Circuit Court.

Yours very truly,

Benj. Smith Lyman.

155 Mountain Street, Montreal
26 June, 1872.

Chas. Perry Esq.
Baldwin Co Institute Works.

Dear Sir:

It gives me great pleasure to avail myself of your permission and introduce Hon. the Baron Gethis, Mr. A. de la Cotrillère Jetbone, Mr. Matthews and I spoke of last evening.

Hoping that you may find it convenient to take him into your service, I remain

Very truly yours.
Benj. Smith Lyman.

[illegible]

[illegible] Street, Philadelphia, 21 [illegible]

[illegible] Esqr.
[illegible] Wilkesbarre New York.

[illegible]

[illegible] your [illegible] analysis and they before [illegible] [illegible] read. Here is my friend Koenig's result [illegible] [illegible] of the "[illegible]" "[illegible]" Coal (Conrad's [illegible]):

"Coke [illegible]
"[illegible] 23,25
"Ashes 6,[illegible]
"Hygroscopic water [illegible]
"100,00".

The amount of [illegible] is very moderate, for [illegible] used; and the coal is [illegible] a very fair [illegible] [illegible] the [illegible] and [illegible] [illegible] by the bed within [illegible] [illegible] should be [illegible] [illegible] less [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] the thickness in the [illegible] [illegible] of the basin and it may not be fairly [illegible] the [illegible] tract.

[illegible] that the Japanese [illegible] [illegible] [illegible] and although they [illegible] [illegible] to [illegible] of [illegible] it [illegible] [illegible] I would [illegible] and the Japanese were to be [illegible] [illegible] would [illegible] [illegible] [illegible] [illegible]. Meantime [illegible] [illegible] me [illegible] [illegible] always as [illegible] [illegible].

Yours very [illegible]
[illegible]

135 South 17th Street, Philadelphia, 2 p.m.

C. N. L. Lyman Esq.

New York.

My dear Uncle:

I have to thank you for your favor
of the 28th yesterday, and for the very
handsome present it contains. I should
still have replied to your letter sooner but
for many difficulties, both and both here by
the press of your last communication. I am by
your letter glad that Aunt Kate and Annie have taken
more of the Chamberlain than I thought, & trust
they will be able to enjoy a share of their being
known at all in the city to relieve me of an unpleasant
& undesirably embarrassing number of visitors, for which
I am much need.

I have heard nothing further in regard to the Jay
case, except that Mr. Daly is expected to bring
it on.

Your affectionate Nephew

Benj. Smith Lyman.

135 South Fifth Street, Philadelphia, Jan 4

Dear James:

Your favor of the 30th ult was awaiting me here on my arrival last week from Virginia. I am very glad that I happened to be of service to you, and that your application was made rather than to anybody else's. It is very gratifying to have at the present time such professional work on hand, and to feel a prospect of compensation for it, and I trust the Lecture Bay is already fairly paid.

I have no definite expectation of going very soon to New York as some have thought I would do. The Japanese project is still in abeyance, but I expect to hear something decisive about it any day and when it is here, I remain

Your affectionate Brother,
Bishop Smith Lyman.

[illegible] Left Back, Tuesday [illegible]

[illegible]

[illegible] Sunday

Mrs Lesley wishes me to write and tell you that she has been sick for two weeks [illegible] getting along very well [illegible] very much surprised to see [illegible] called for a day or two on sick yesterday that [illegible] and the Doctor (Hitchcock) was with him and that [illegible] day or two. This evening I have been there again and [illegible] call this forenoon; for he [illegible] the first of July a dozen times on Saturday all [illegible] the undertaker. Finally Dr. [illegible] had been found yesterday morning, Dr. Gibbons said the trouble was merely an [illegible] yesterday afternoon that might last several days, but was [illegible] Last Thursday evening Mrs. Lesley would have [illegible] celebration at the Academy [illegible] and ate [illegible] Chicken salad which was the immediate cause of all the [illegible] difficulty. The disease had some resemblance at times to Cholera morbus, but without much pain in the stomach. There was also a chill, but it did not come again today the [illegible] yesterday; Dr. Gibbons said it could not have been so with [illegible] hot weather. I asked Mr. Lesley this morning if he would like to have you come up, and he said oh, no. He said he would be sure to make you sick; and besides he is getting [illegible] all right. [illegible] afraid that you [illegible] sick, [illegible] Lesley. All this evening he [illegible] very feverishly, most [illegible] although still on his head. Although he can hardly write [illegible] yet, there is really no cause for anxiety, & you [illegible] If people [illegible] anxious & do every thing [illegible] for him. [illegible] Monday Mr. Lesley [illegible] Mr. Clark also came [illegible] Stone-House pic-nic [illegible] Yours affectionately [illegible]

1350

1350 South Fifth Street, Philadelphia, [illegible]

Mrs. Susan A. Lesley.

My dear Aunt:

I forgot [illegible] last night to enclose
to you this letter from Mrs. Kendall with which she sent [illegible]
dollars for the Boat fund. Mr. [illegible] asked me to send it to
you as they [illegible] he had received from Mr. Jas. Green
Clarke fifty dollars for Mr. Harden to pay John Hall
wages with, as well as fifteen dollars for John himself.
[illegible] yesterday packing up Mr. Lesley's Cabin
before sending it over to the [illegible] Mr. Harden has
told [illegible] that he will have the Boat Mantua
within a few days and make arrangement for John's
work. We had heard nothing about John since his
first week or two in Philadelphia & were much astonished
to learn that you had all been going through
with so much for him.

I shall perhaps write again this evening after seeing
Mrs. Lesley. It is very hot again this morning.

Your affectionate Nephew.

Benj. Smith Lyman.

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135 North Fifth Street, Philadelphia, Pa.

(Evening.

Miss Susan L. Lesley.

My dear Sister:

Mr. Lesley has not had a very good d
for it was the evening he says. He has had a little ex
and headache and therefore is not very strong. He d
would rather talk to Lina & Ellen & me & read a
to him. I found Dr. Sitgreaves there this morning and he was
very well pleased Mr. Lesley was much better. Dr. Sitgreaves is going tomorrow to Germantown
with his wife. Mr. Lesley received three letters
one from Mary and a discouraging one from Lee. Mary
wrote for Stanley. Mr. Lesley considers this an
unusually cold day by night and by day and is generally
very quietly. He received today your letter of Sunday
He enjoyed Dr. Sitgreaves this evening the peculiarly opposing
[illegible] he could remain there. The latter thought
the risk would be in exposing himself to the keen night
but it seems cooler this evening and if it should prove [illegible]
Mr. Lesley thinks he is [illegible] I should not be surprised should Mr. Lesley [illegible] however as seems
decidedly to want for [illegible] a visit. I am going up there
again early tomorrow morning & if then he is [illegible]
he has not then left [illegible] I can decide on. Lina
& Ellen thank the child, but [illegible] could be
with them. Lina is [illegible] as possible and
looks as well as you can imagine.

Your affectionate Brother

Henry Lesley

35 South Fifth Street, Philadelphia,

Mrs. Samuel Lesley.

My dear Aunt:

I am very happy to be able to report this evening that Mrs. Lesley is much better, and thinks she will be well tomorrow. She has been up and dressed all day, and has been working as far as Bread proof. She feels a little tired this evening. This morning a thought very seriously of taking the cars for Altoona. [illegible] recommended that the journey would be very [illegible] back head for him, disagreeable as it would be even for a well man; and it seems very lucky [illegible] if [illegible] and that he kept quiet at home. Dr. Gibbons [illegible] called again this evening, and Mr. Lesley [illegible] Mrs. Lesley was there when I arrived between home right after that. He seemed very much gratified at finding her resting so much better, as he had been very anxious about him for a couple of days. Mr. Lesley received a letter from you this morning which gratified him very much.

Mr. Tom Hyslop called this evening [illegible] left under a good deal of excitement [illegible] police, and will perhaps [illegible] by them tomorrow morning [illegible]

135 South Fifth Street, Philadelphia, 9th Mo 9th

H. L. Lyman Esq
Kalamazoo Mich.

Dear Friend,

The bundle of Chuddars, Reds & Hooks came safely to hand on Friday afternoon, and I found your [illegible] made for your trouble about them. The Chuddars do not all seem to be of quite the same quality, but I think that Aunt Kate's were fine enough to suit her.

Affectionate Nephew,
Benj. Fran. Lyman.

[illegible]

18 South Fifth St., Philadelphia, [illegible]

My dear Sanborn:

Many thanks for your very welcome letter of last Monday with its information about Miss Wilson. Miss Lyman still hesitates a little before taking any decisive steps towards trying to engage Miss Wilson, and is especially interested in [illegible] said about the [illegible] expenses, for the [illegible] are very troublesome [illegible] if they happen to take the [illegible] to teaching very hard [illegible] as they have everybody [illegible] for [illegible]. It has occurred to me that you might among your numerous acquaintances know of somebody just right for the place, who would be willing to take what Miss Lyman has to offer in the way of compensation. She does not feel able to offer more than [illegible] hundred dollars the first year, but would perhaps give more after that if well satisfied. The school hours are I believe from nine to two only.

Your wife's [illegible] has arrived here at last and I will send it on to you at Concord by [illegible], if nothing unforeseen prevents.

I see that the [illegible] has been making a speech about [illegible] his usual magnanimity to give [illegible] his rivals' election [illegible]

Hoping it will not [illegible] to [illegible]

[illegible] ever,

[illegible]

135 South Eighth Street, Philadelphia, [illegible]

My dear Nelly:

Knowing that you have a very numerous class reading arithmetic I take the liberty of asking you if you know any [illegible] can get a teacher of English Grammar in Miss Jones school there. The wants of course should be manifold as possible, well taught, [illegible], amiable, pleasing in manners and capable of governing may be [illegible] as well as of teaching well. The pupils will [illegible] first year eight hundred dollars, but I will [illegible] would pretty increase the salary another year. If school hours are short from nine to two, this is a pleasant vacation for many teachers. Most vacations at Christmas and Easter. A teacher who has had some experience would be preferred. If you should happen to know of any body that you think may be suitable and that might like the place, please drop me a line at your earliest convenience. My typhoid will probably pass through Boston about the middle of next week and could perhaps have a personal interview with anybody living in that region.

There has been within a few days a good arrival of the expected Camphor Ointment, and I am going to send you one of them for a present to remember by appear

It is long since I have heard any thing about you or the rest at Jamaica Plain, but I trust that [illegible] is doing well. I have lately come back from [illegible] weeks in West Virginia, and am going to start for [illegible] if not for Japan. The Japanese Government [illegible]
[illegible] I do not know yet whether my trip will be [illegible]
[illegible] Give [illegible] and believe me [illegible]

38 South Fifth Street, Philadelphia, 5 July 72.

Prof. Joseph Henry,
Smithsonian Institution,
Washington, D. C.

Dear Sir:

On my return home a fortnight ago I found parties waiting for me here who are [illegible] anxious to have me undertake a certain survey for them as soon as I should finish up the work in hand. I declined to make any positive engagement until I should hear definitely from you about the Japanese affair. I beg therefore that you will drop me a line whether it will [illegible] if it has been decided not to employ me or not. I am otherwise left uncertain whether any decision has been made or not. I should have concluded that the matter was settled before this had I not seen in a newspaper that some of the [illegible] ambassadors were still at Washington. If no decision has yet been made however I would ask you to state the [illegible]

[illegible] Benj. Smith Lyman

The Great Kanawha Coal Lay in West Virginia.

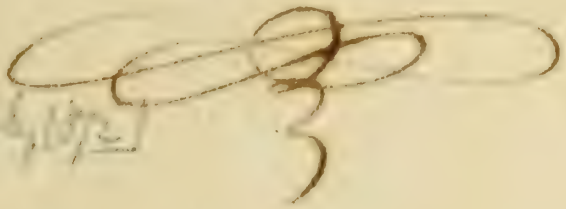
---

The [illegible] of the most [illegible] of the way regions for an [illegible]
0 miles from Philadelphia is the coal region of [illegible]
ania, although it lies on the middle & State Ca[illegible] of the
ny and Lyons to the line of the National Road was a
great thoroughfare & on the west [illegible] Ohio
both the only public means of getting [illegible] was by the
public stages or by steam boat, and still the
Pennsylvania R.R. [illegible] is the great convenient way
[illegible] from [illegible] to Cincinnati. But within a few
Chesapeake & Ohio R.R. has been opened from Newport
New River near the [illegible] corner of Ohio [illegible]
and runs [illegible] to Charleston and to Kanawha with
[illegible], & Kanawha Falls [illegible] [illegible] miles above the
The said road does not yet connect at either end with the
but is expected to be finished early next fall & when
joining the end of the Virginia Central R.R. from Richmond, and
a route by which produce will also be made from the
Coal the region will form a part of the vast [illegible] which
will be able to get out of [illegible] the East without going
Cabin Point [illegible] and without the long [illegible] down and
[illegible] wheel steamers stopping at every cabin along
their track and [illegible] in freight mostly all night, and
at last need [illegible] at Old Point [illegible] Fortress Monroe
[illegible] 5 feet of a tide [illegible] and [illegible] the [illegible] and the
[illegible] of Ohio [illegible] [illegible] for flats and the
[illegible] as well.
[illegible] time, however, [illegible]
[illegible] steamboat [illegible] railroad

[illegible] Eastern market cheaper domestic use and [illegible]
a domestic fuel it is most admirable, and for [illegible]
double of our "varieties" of common pea coal [illegible]
smoke pass very much. The whole amount [illegible]
shipped from [illegible] probably [illegible]
[illegible], [illegible] to present Pittston Company [illegible]
have worked within the last four years some [illegible]
coal in other places has been sold for mining coal [illegible]
[illegible] express were mined by the Lehigh [illegible]
[illegible]. The Carnelton mine at the Kanawha [illegible]
above Charleston was formerly worked for making
[illegible] but [illegible] a few years began to ship coal. The
[illegible] Lump coals of the region are also good, so
them very fine indeed; but they are not so [illegible]
[illegible] from western Pennsylvania coals as the mar-
[illegible] price in the world as to cannel. There are the
[illegible] that ship bituminous coal: the Coalburg mine,
[illegible] seventeen miles above Charleston, a deeper gra-
[illegible] shipped last year it is said, a million and a quarter
[illegible]; the Campbells Creek mines, near the Kanawha about
[illegible] miles above Charleston, some half a dozen years old, a
[illegible] they mined here the Coalburg; and the Raymond
[illegible] on the Kanawha nineteen miles below Charleston, abo
[illegible] four years old, are said to ship still more. Comp
The coal is all bituminous and [illegible] all by [illegible] dam
[illegible] can put the coals at Cincinnati for [illegible] by rail [illegible]
[illegible] mining, manufacturing and railroad enterprises are
[illegible] and numerous now in the region and are
[illegible] by the inhabitants; and western capital
[illegible] are warmly welcomed [illegible] quiet "good
[illegible] capital & wealth and [illegible]
[illegible] the busy bustling age of [illegible]
[illegible] according to

Nothing; and encouragement is now given to any man of business activity that improves everybody's chance of earning a living and helps to bring bodily comforts and education within the reach of the greater number.

B. F. L.



[Dated 7/4/1872]

Philadelphia, 9 July, 1872.

Dear Addy: The bearer of this is my friend Miss C. D. Lyman of whom you have already. She has concluded to stop at Framingham day after to-morrow and if possible have a talk with you and with the ladies you recommend for a place in her school. Any kindness you can show her in the matter, in addition to the very welcome telegram and letter yesterday, will be gratefully remembered by

Yours affectionately
Chas. Sumner

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Mrs. Hannah Corbin.

Dear Sister

Your favors of the 11th & 17th July came duly to hand. I am glad to hear that Mr. Corbin is getting better, and that you are determined not to leave him until he gets well. Jane was delighted at your resolution of that. He could have the best attendance in nursing from the bottom, the meeting that he has received there, & the kindness and tenderness of the young girl, and should you will a great deal of trouble. The young girls now at Mr. Corbin's should be looked after well. Mr. Hall was disappointed that Mrs. Corbin and he could not stay without him perfectly well as he [illegible] and the result. I have contributed the original piece for this week's number in the Knickerbocker [illegible] and have written [illegible] for next week & have taken from [illegible] and which I have [illegible] Mrs. Corbin came [illegible] Mr. Hall and he declared himself) a letter about a mile [illegible] by it you will find that he has been unable to find without running me would like some indication from Mr. Corbin as to whether [illegible] I have a letter today from Mr. Henry in answer to one from me, saying that he has written Mr. Corbin (the [illegible] and that he [illegible] d'affaires and he [illegible] my appointment [illegible] some time this week agreeing to my proposition [illegible] as if there were [illegible] a proposal for my going to [illegible] like because of [illegible] Mr. Corbin [illegible] to [illegible] the affair and have determined about [illegible] again [illegible] Mr. Corbin [illegible] Mr. Corbin [illegible]

Dear Sir

Your favor of the fourth came duly to hand. I have no special form of tents prepared for the Indian work & would have sized the number of Indians to the Standard of the tents and consequently the number of tents to the Regiment at.

My tents are in very good condition, nearly new as far as concerned, though the single ones formerly have been used little more than the flies. The fly one is what they call a wall tent, and consists of a tent eight feet square, with a ridge pole over that and some distance above it another tent with a ridge but with semicircular or half round ends, one gable makes a verandah at the door end of the main tent and the other is made by a wall making a bed room or dressing room at the other end. By removing this wall all round (with no material) the main tent might easily be made into a large tent by itself. I have no poles for the tents, but have the irons that go on the ends, and the holes could easily be cut in the poles. I have also about thirty tent pins, but about as many more would be needed, and these could be made easily of wood. I [illegible] sell the tents separately, but would take a hundred dollars for them all together, and pins to hold them about that. I imagine that would be a very low price for them here. They are made of good material of three or four thicknesses it is said. They are at my office here and could be had at any time when I am in town.

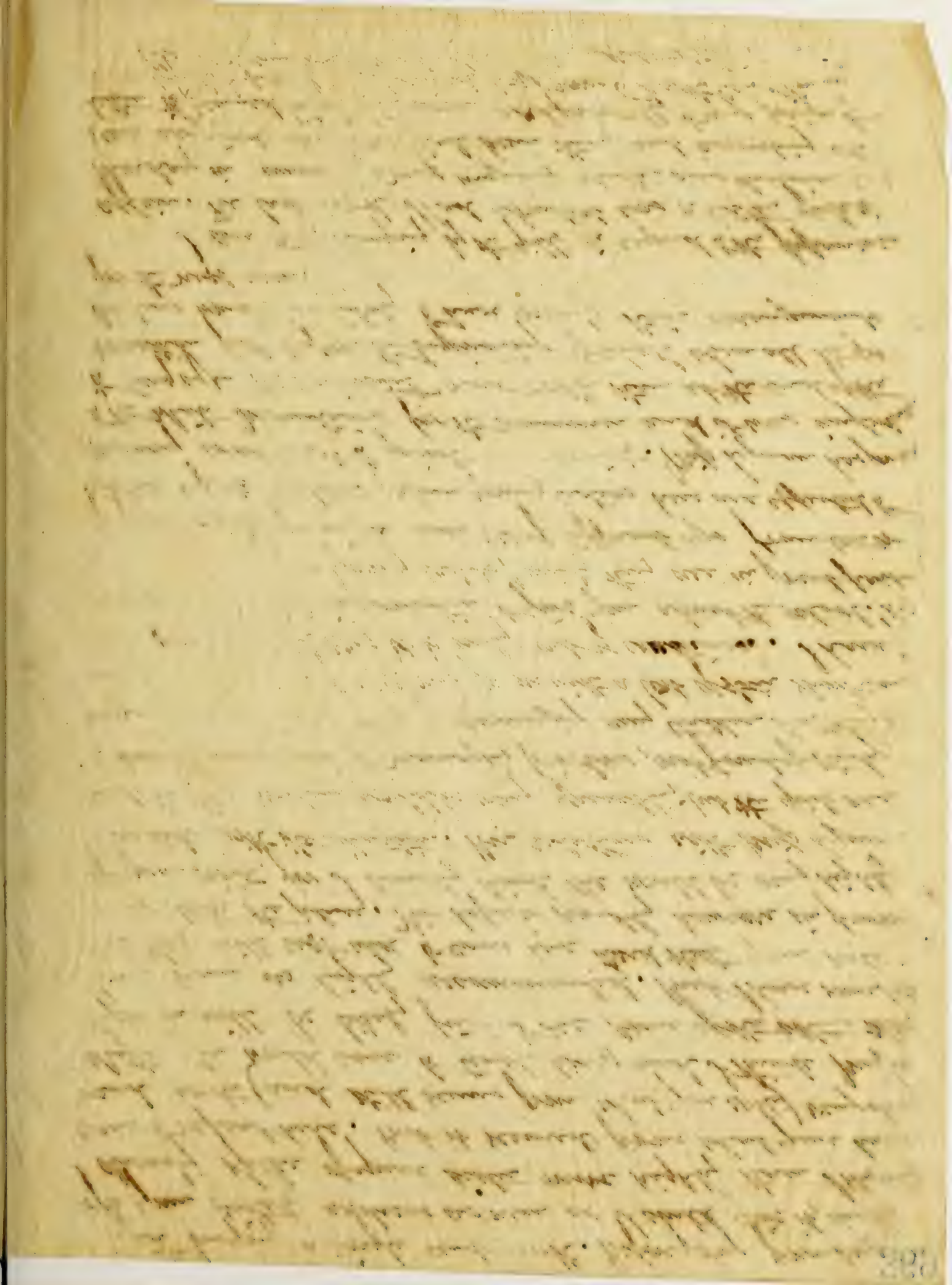
I hope you will be well pleased with Mr. de la Cormilliere and that his present position will be a stepping stone to [illegible]

Yours truly,

Benj. Smith Lyman

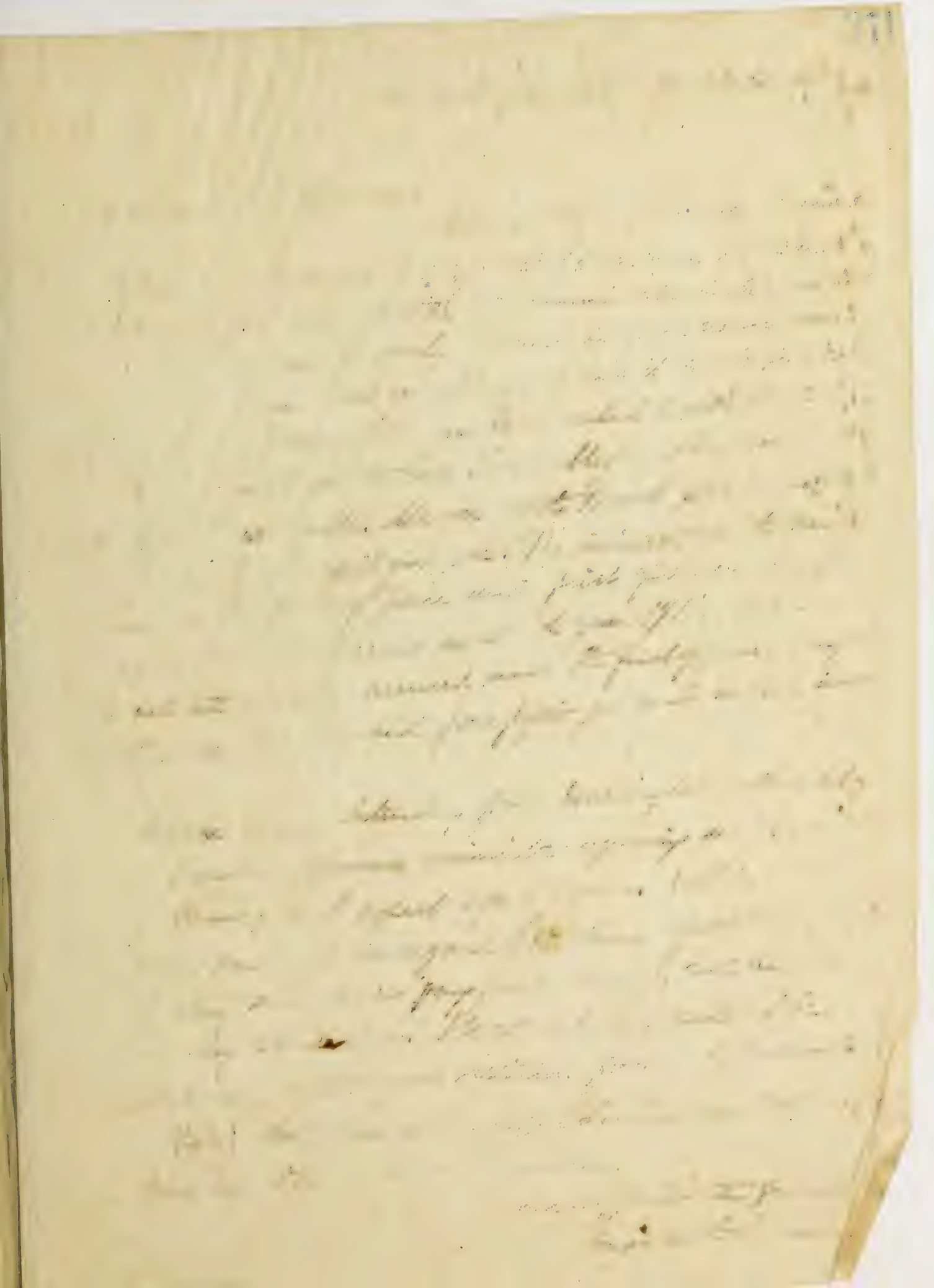
135 South Fifth Street, Philadelphia, 10 Jan[y]

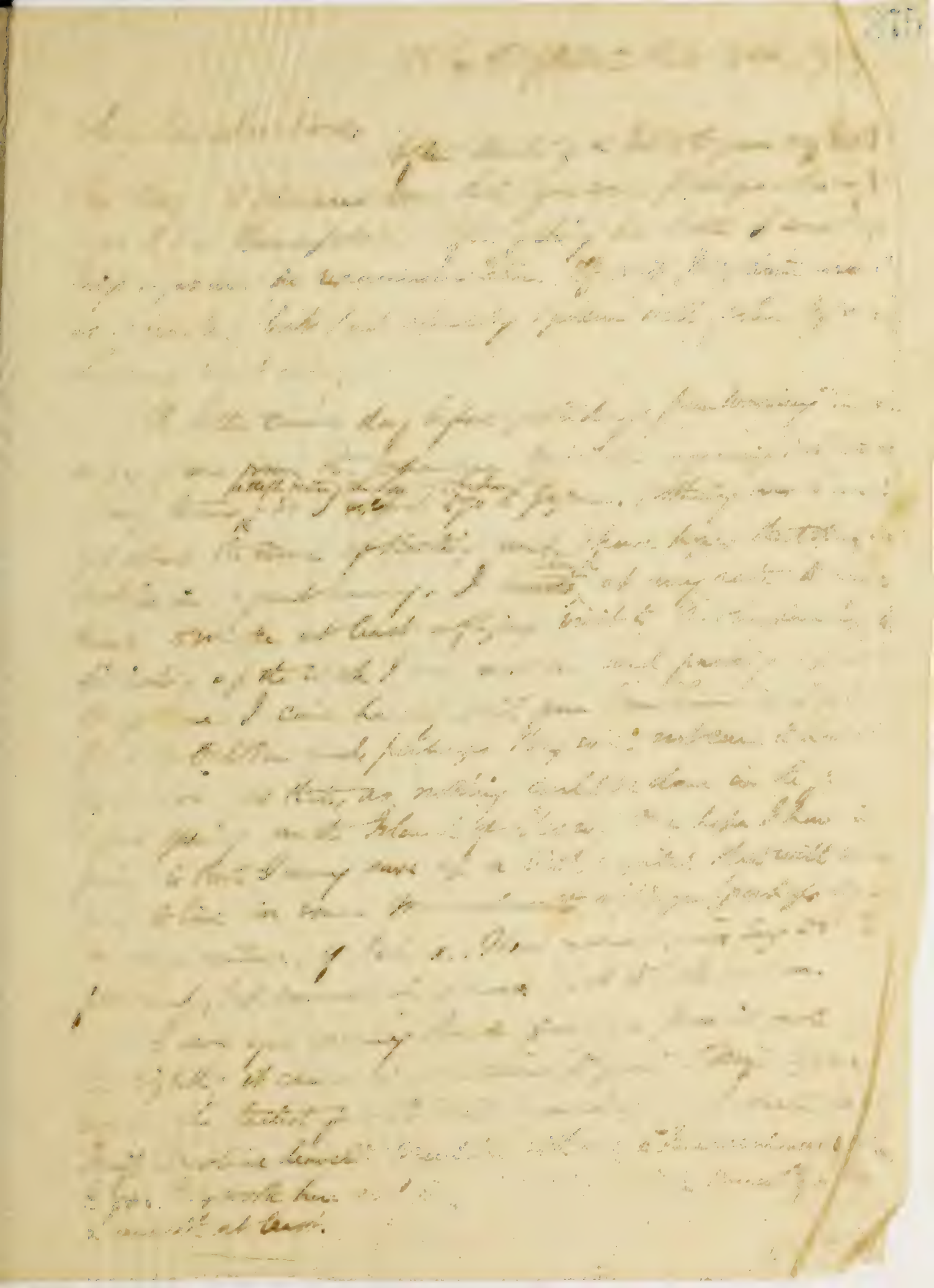
Dear Mary! I am glad to learn by your favor of today & yesterday, that you are all doing well in spite of the weather. The cold has come on again, but not quite so bad as last week, and I hope it is still better with you. I am very glad that Mary was up to Trinity, but very sorry the child had provided herself a cold by sucking her sleeve to stop finishing to people then, instead of my old handkerchief. I hope Mary will have the comfort of knowing she has done as well as she and her family can. But they are not any longer in the same house when they invited me; I might if I could be very easily induced to find them & many comforts at home. I like to have points out & their annual places as perfectly pagan as me, for her to take official notice of them. The house account you will seem to be pretty much done except for the moulding and painting the doors. — No definite news yet about the Japanese affair, but a letter from Bryant that came yesterday in answer to mine requires a prompt reply: I have written Mr. Mori on the subject of your appointment and hope soon to have his reply agreeing to your proposal so it is still possible that I may go to Japan. The papers here that said me to go to North Carolina are still waiting with more or less patience or consideration. The next mail will advance shortly. — The Misses Lyman attend the morning per some place not fully decided on in the Berkshire mountains, probably Bethlehem & Lynnfield. They are going to stay in Boston and Newburyport to engage an assistant for next year. I saw Mr. Bliss and his daughter Anna at the youngest child last Saturday evening at their house, & had a pleasant call. They said that were at Nottingham. I could learn now that almost all of my friends are out of town, and I could be very [illegible] in the house [illegible]

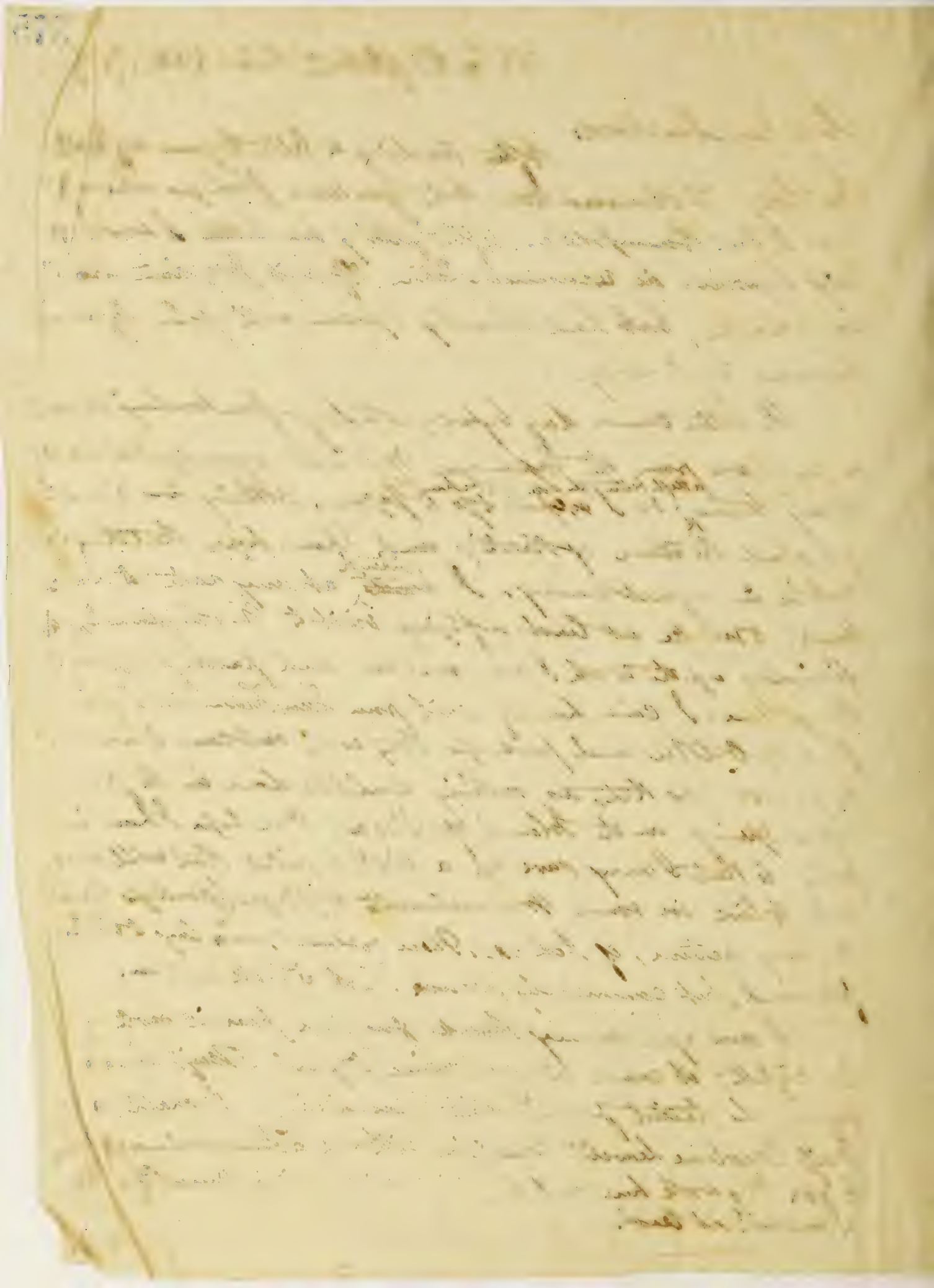


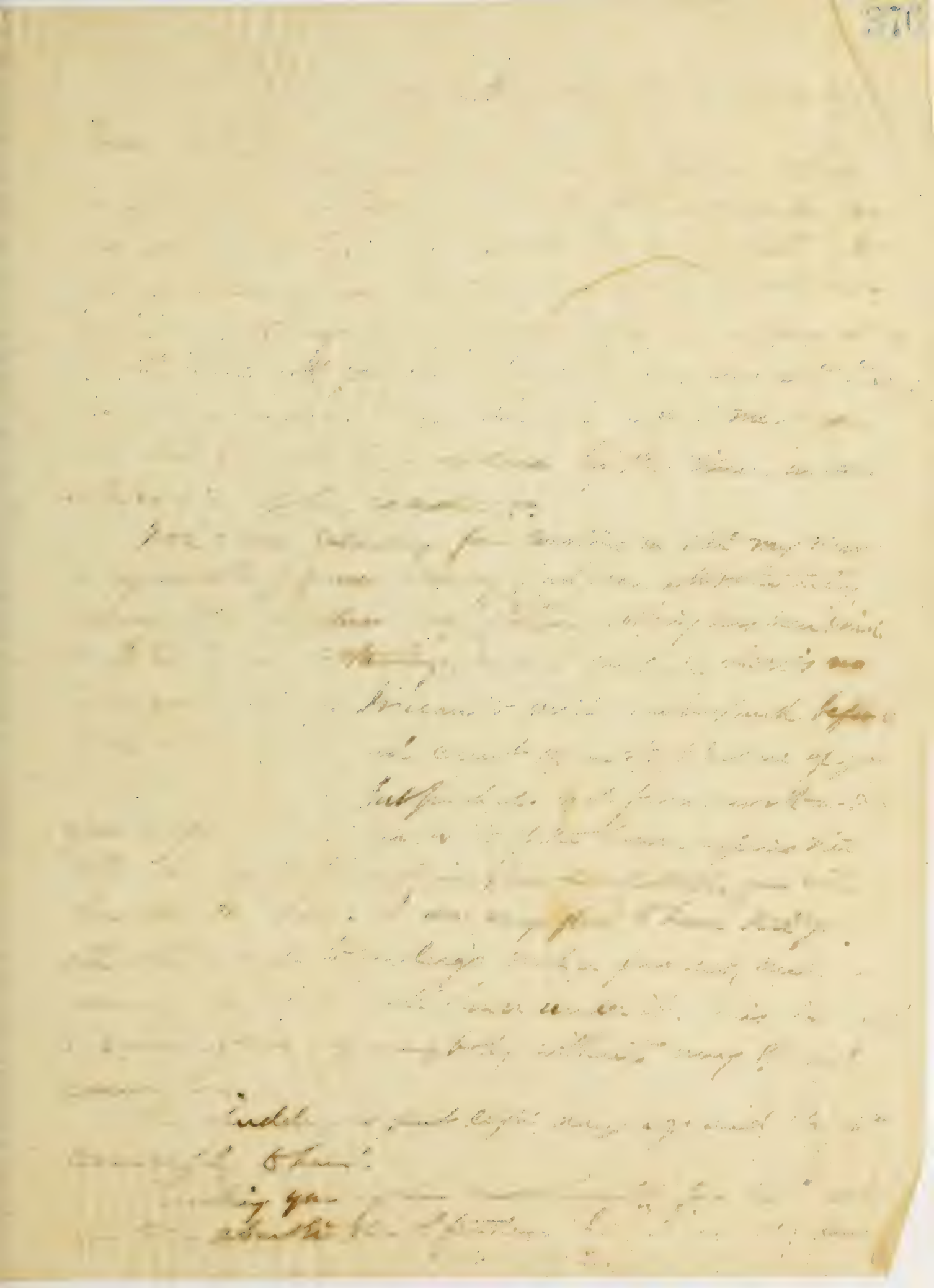
Yours truly,

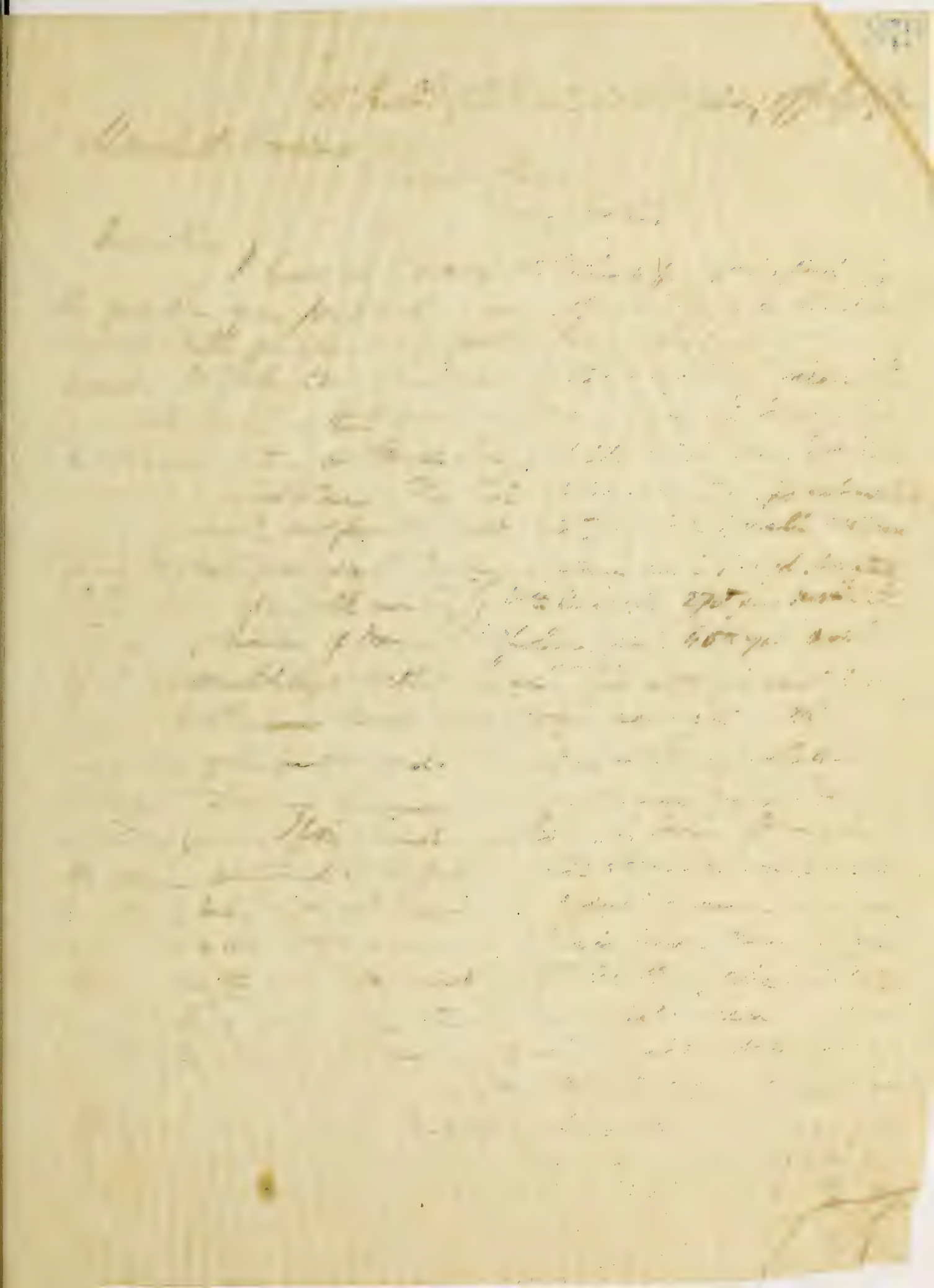
David Lyman.

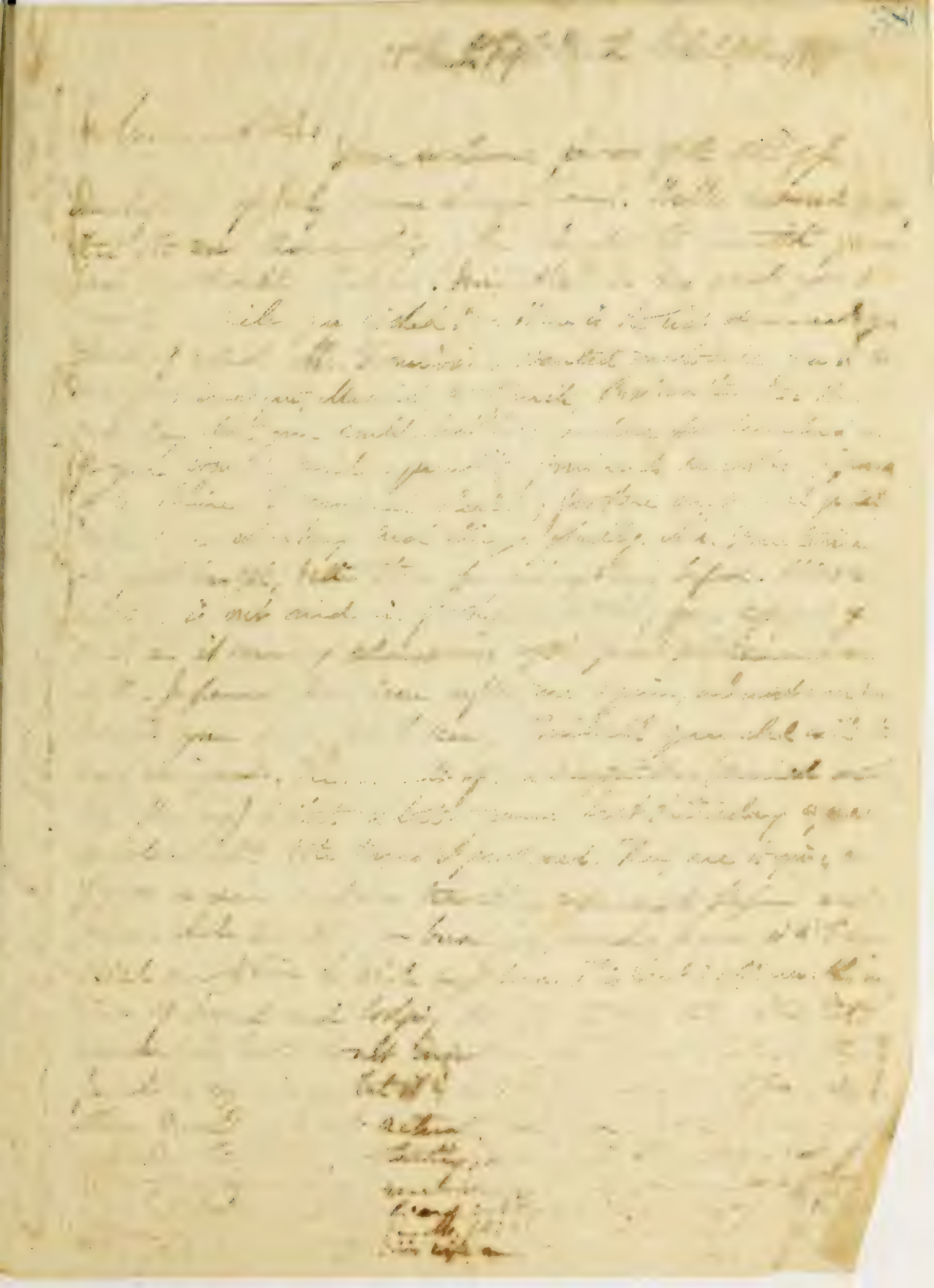


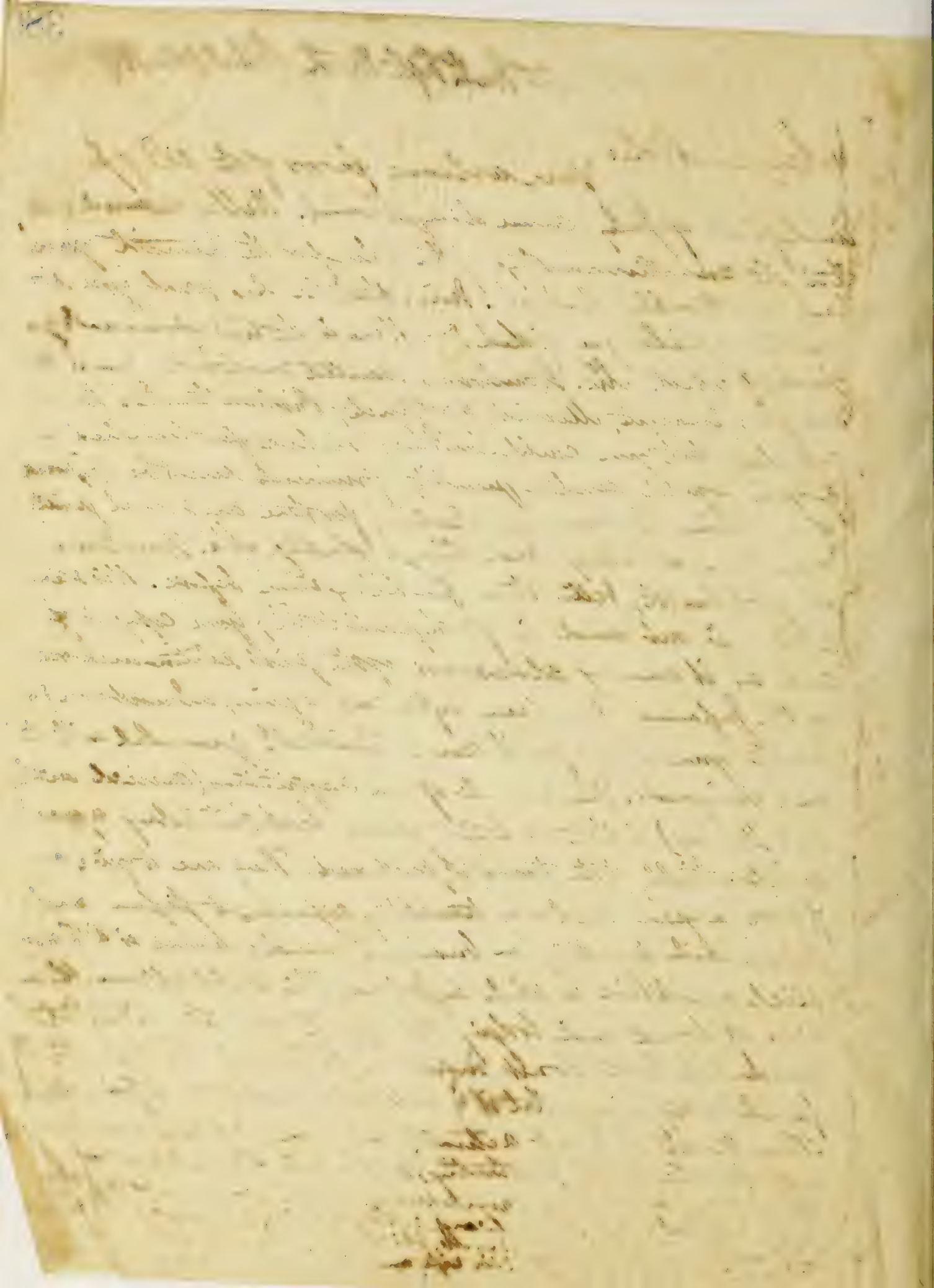


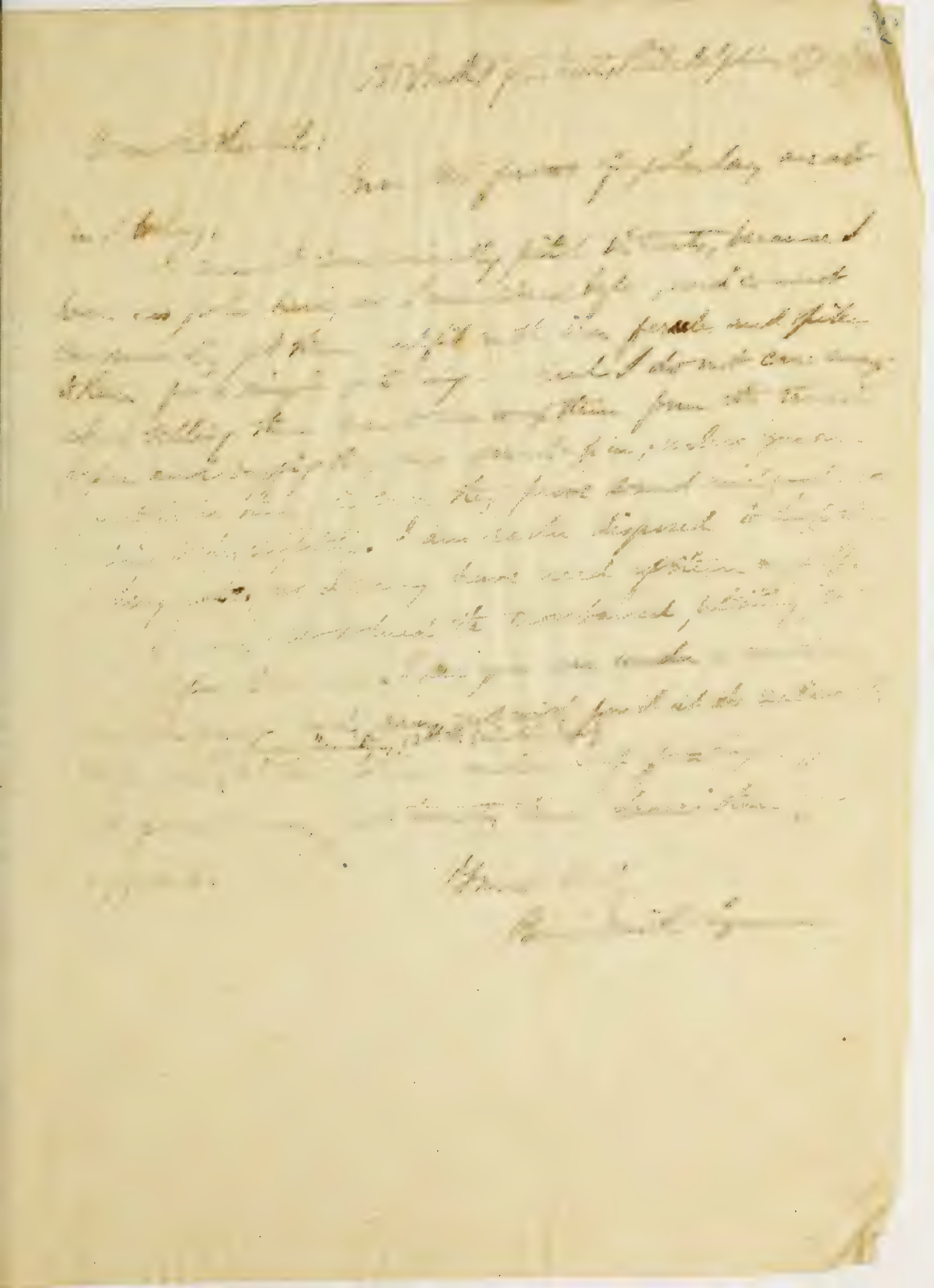


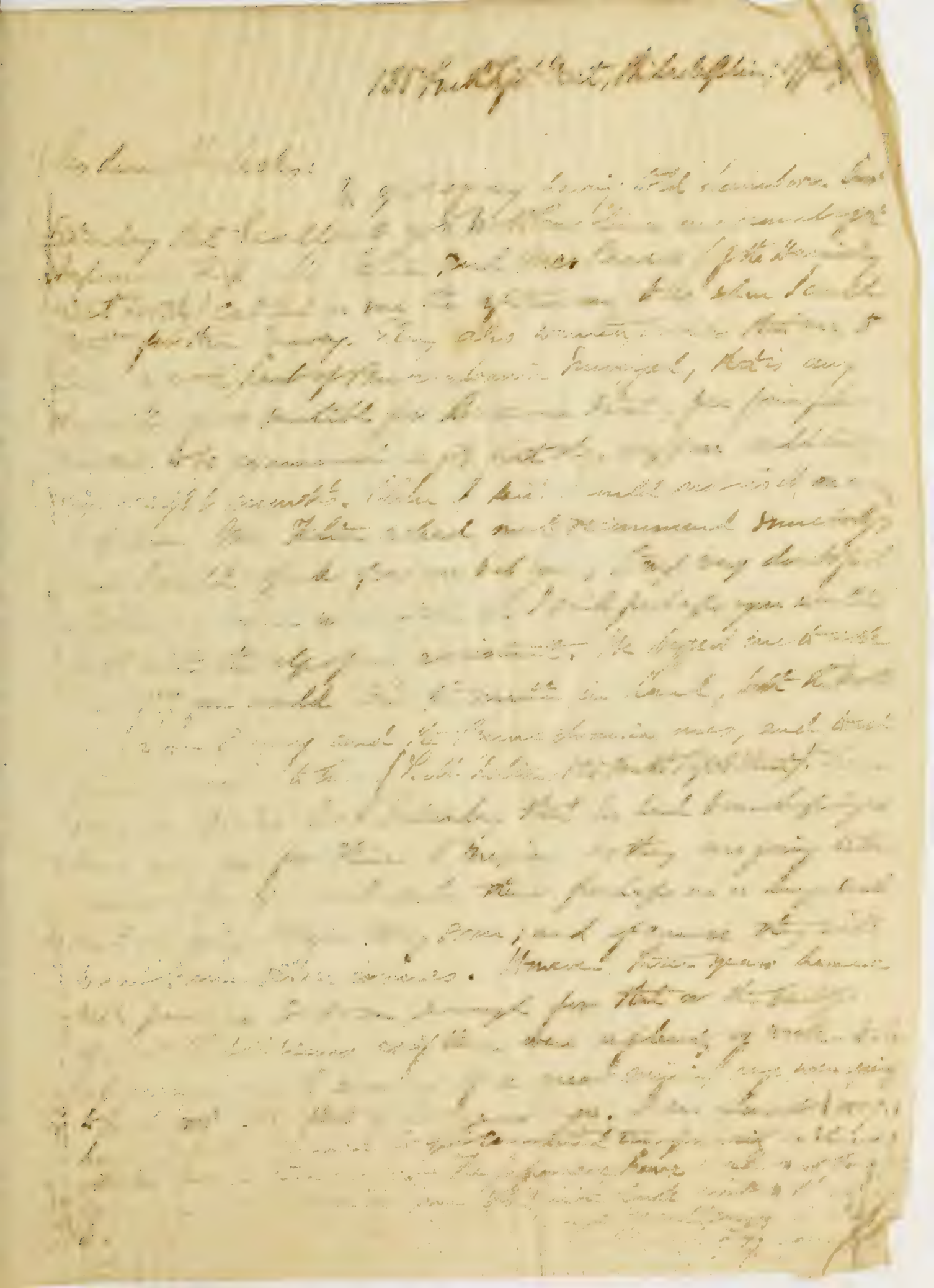












incidents connected with my residence in Virginia. I found in my library the Memoirs of Mrs. Hutchinson, a woman of distinguished talents and character, and whose husband was a staunch republican and a member of the celebrated Long Parliament of England, which commenced its session in the year 1640. The memoirs were written by Mrs. Hutchinson for the instruction of her children, and were not intended for the public eye. They were published, however, after the death of the author, and have become a standard work in English literature. I had already made myself acquainted with the principal facts recorded in the memoirs, and was therefore prepared to appreciate the merits of the work. I had not read it more than half an hour before I found myself deeply interested in the fortunes of the author and her family. I read on and on, until I had finished the first volume. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the tenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the eleventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the twelfth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the thirteenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fourteenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the fifteenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the sixteenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the seventeenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the eighteenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the nineteenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the twentieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the twenty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the twenty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the twenty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the twenty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the twenty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the twenty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the twenty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the twenty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the twenty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the thirtieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the thirty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the thirty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the thirty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the thirty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the thirty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the thirty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the thirty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the thirty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the thirty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fortieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the forty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the forty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the forty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the forty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the forty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the forty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the forty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the forty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the forty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fiftieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the fifty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fifty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the fifty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fifty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the fifty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fifty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the fifty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the fifty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the fifty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the sixtieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the sixty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the sixty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the sixty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the sixty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the sixty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the sixty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the sixty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the sixty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the sixty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the seventieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the seventy-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the seventy-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the seventy-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the seventy-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the seventy-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the seventy-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the seventy-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the seventy-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the seventy-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the eightieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the eighty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the eighty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the eighty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the eighty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the eighty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the eighty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the eighty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the eighty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the eighty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the ninetieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the ninety-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the ninety-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the ninety-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the ninety-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the ninety-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the ninety-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the ninety-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the ninety-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the ninety-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundredth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and tenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and eleventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and twelfth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and thirteenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fourteenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and fifteenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and sixteenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and seventeenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and eighteenth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and nineteenth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and twentieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and twenty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and twenty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and twenty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and twenty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and twenty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and twenty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and twenty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and twenty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and twenty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and thirtieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and thirty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and thirty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and thirty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and thirty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and thirty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and thirty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and thirty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and thirty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and thirty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fortieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and forty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and forty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and forty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and forty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and forty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and forty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and forty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and forty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and forty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fiftieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and fifty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fifty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and fifty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fifty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and fifty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fifty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and fifty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and fifty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and fifty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and sixtieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and sixty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and sixty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and sixty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and sixty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and sixty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and sixty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and sixty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and sixty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and sixty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and seventieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and seventy-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and seventy-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and seventy-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and seventy-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and seventy-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and seventy-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and seventy-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and seventy-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and seventy-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and eightieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and eighty-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and eighty-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and eighty-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and eighty-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and eighty-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and eighty-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and eighty-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and eighty-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and eighty-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and ninetieth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and ninety-first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and ninety-second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and ninety-third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and ninety-fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and ninety-fifth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and ninety-sixth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and ninety-seventh volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the one hundred and ninety-eighth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the one hundred and ninety-ninth volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the two hundredth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the two hundred and first volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the two hundred and second volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the two hundred and third volume before tea. I then laid it aside, and went to bed, but not to sleep. I could think of nothing but the memoirs. I rose early in the morning, and resumed the reading of the work, and finished the two hundred and fourth volume before breakfast. I then laid it aside, and went to my office, but could not attend to my business. I could think of nothing but the memoirs. I went home to dinner, and after dinner I resumed the reading of the work, and finished the two hundred and fifth volume before tea. I then laid it aside, and went to bed, but not to sle

135 South 9th St. Philadelphia, Nov 8th

Prof. Joseph Henry,

Smithsonian Institution,

Washington, D.C.

Dear Sir

As nothing has come to hand in regard to Japanese affairs since my acceptance nine days ago, at the time you communicated it has occurred to me that I might possibly be mistaken in supposing that a tacit understanding passed between us as equivalent to my receiving the appointment. I have on this account within a few days refused twelve months work in two handsome offers; and in view of such circumstance as well as for other reasons would be very glad to be relieved of all uncertainty in the matter by some definite information. I am not however impatient to set out for Japan nor even to go to Washington to despatch the matter on the contrary other affairs that press upon me and duties occupy all the time that can be spared before my departure.

Hoping that you will excuse my troubling you again, I remain

Very truly yours

Benj. Smith Lyman.

The Japanese seem to make up [illegible]
tally to my views, and I am pleased, and have
expecting to go to Japan, & see nothing further
come from them and the last of the treaty, when
with the treaty at once almost began to think
it make two years ago. On the strength of
however I refused to [illegible] the
in two years & offer a form under the pay
Perhaps some word will come from the Japanese
long or two, we have written in order to [illegible]
before April 1st.

Orbit left the card of a person [illegible]
ing to the house; I can point your house, with
Mr. Brown's help, and send you your instructions
from him. (I left by the way the two books with Mr
Brown in a sealed envelope, and he seemed pleased
to take charge of it for you.) You were not [illegible]
delightfully cool. It was hot as usual, & I
you home this evening and found it very warm
in spite of the same state you were in. I dare
Hall Gurley was likely this evening to accompany [illegible]
Concert in the Opera house by the Fisk Reps. [illegible]
have arrived this afternoon and were taken. [illegible]
to Peking in a procession. We have had a nice
afternoon. Mr. Frank Fisk still continues to [illegible]
adventures from time to time. He engineered [illegible]
flight to Minnesota before going to [illegible]
to his home for himself and [illegible]
[illegible] left Mrs Fisk to the [illegible]
with [illegible] Mrs. Fisk until
[illegible]

135 South Fifth Street, Philadelphia,

E. H. R. Lyman, Esq.,

Dear Sir:

In answer to your favor of the 5th inst. requesting to be informed what the cost of repairing the following articles would be, I have to state:

1 Chronometer cost to repair $
1 Clock " "
1 Clock " "

Now 117 days @ $1.00 per day $6.75
Add 1/17 (117/17 x 44.00) 28.72
Whole cost of repairing the above $34.47
Subtract payment made by you this day 10.45
Balance due me $24.02

Note: In estimating that the watch and clocks in the possession of Lyman, Liddell & Co. have been from 3 to 4 days in repairing, we have allowed for those articles amounted in value to 60 days work; for those articles amounting in value to 60 days work and upwards, we have allowed 117 days.

Yours respectfully,

115 South 5th Street Philadelphia Sept 15th 1872.

My dear Father:

Many thanks for your favor of the 12th inst. I received today a letter from Mr. Mori which says: "Count Otori of Japan is expected to return to this country from Europe during the month of the present, and he may have some suggestions to make in regard to future [illegible] before deciding upon any plan of action."

"Very truly
"Yours
"Arinori Mori
"Chargé d'affaires &c."

It was in answer to one I wrote to him to ascertain if I was right in supposing that I might call and [illegible] certain propositions for his consideration. He does not seem to give an explicit but rather a [illegible] reply. I [illegible] engagement as well. A letter from Prof. [illegible] days ago in answer to similar inquiries, [illegible] committee, who was clear & explicit. [illegible] connection with the affair [illegible] have been agreed to. [illegible] more than were known by [illegible]

1st Tank Light Horse, Hotel Lyon, 8th July

Dearbelly: Leave & thank you very much for your kindness in helping Miss Lyman to find an address and for your offer of all your efforts to assist her in securing a flat. Miss Lyman tells me that by your advice she has engaged a very good suite of rooms in Half Moon Street. She says that during your stay in Manchester Miss Lyman & I had tea with you at the Manor House and found that we had just missed you at Kensington; and Miss Lyman then spent the morning, had lunch with me and very much pleased and made an appointment to meet me at Kensington; and I do not see any reason why you should be any longer. I must confess to a little anxiety & suspense in sending Miss Lyman to you at Kensington for I knew you would be very much occupied with other affairs. But I did not well see how else it could be so easily & conveniently arranged, and thought a minute of your time that day would be worth a hour for the same purpose at any other time. Miss Lyman broached the subject tentatively on several occasions in the day, but I think she has not been a bore after all.

It seems from a letter of the Colonial Minister at Washington that he will not be leaving upon plans for the East before the return from Europe in August of Sir Edward Grey, & may have something to say to Egypt & Sudan affairs. Miss Lyman

[illegible]

115 South Fifth St., Philadelphia, May, 1871.

J. T. Lovering
No. 58 Broadway, N. York.

Dear Sir:

I telegraphed this morning in answer to your yesterday: "Map need till Saturday. Can help be ready Monday?" It is now done altogether. The calculation of the areas of the different counties, the figures in a table in the margin, and the lettering and the [illegible] remain to be finished and the table. I think the engraver will take out a few hours tomorrow. There will be a great deal of lettering to make everything as clear as may be. I hope to get that done quickly by leaving out [illegible] will be finished up at the lithographic establishment. I should expect to have the work photographed down to a smaller scale, and then have the professional letterer, who is more skilful than I. While that is doing and the plate prepared I can write (or finish writing) the report, which is just putting the work into words and will take but a few hours. It is of course the last work and I shall get it done as soon as possible. This is the best I can do, and I am very much obliged to you for your kindness. But if it is important that any precision in advance beyond this can be attained, I will take it.

I am hardly willing to leave the "photo-relief" out of the hands of the maker of the plate and think I will take it to New York and put it in Prime's hands, and will get it back from there, starting from here early Monday morning. Then I shall be able to [illegible]

[illegible] 1st St., Philadelphia, Pa.

Dear Sis, 1/19

I am very much obliged to you for the [illegible] you sent in regard to the dress. I am pleased with my dress and I will try to remember it accordingly. If I will try to avoid sending you what will be likely to be new-fashioned in the [illegible] stores. But how they keep the Contract in making these stores so very narrow as two feet and a half!

I am expecting Ed & Hen York tomorrow a business connected with my best Virginia suit and shall probably be there a couple of days, as [illegible] like James.

I am very glad Nancy is enjoying her travels so much at last. It will be something very pleasant for her to look back on for a long time.

Mr. Seley was sick abed all day Wednesday but has been better since. He, and the afternoon has gone down to New Jersey to visit a friend and stay all night. His friend is Mr. Howard Clark, son of James Freeman Clark. He is a civil engineer by business here.

The weather is very quite comfortable, and the are cooler. But many folks are dying from the heat through the latest wave. Mr. Seley [illegible] taught in [illegible] Medical Foundation.

[illegible]

Report on the Tho Parker Coal Tracts
[illegible] Creek Kanawha County, West Virginia;
with a Geological and Topographical Map of a
[illegible] Survey; by Benjamin Smith Lyman, Mining
Engineer, office No. 135 South Fifth Street, Philadelphia.

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Situation.
Lay of the Land.
Geology.
Pittsburg Coal.
[illegible] Upper Coal.
[illegible] Lower Coal.
[illegible] Coal.
Factory Coal.
Other Coals.
Summary of the Coals.
Salt.
Oil.
Shipping.
Canal.

Location. — The Parker Coal Tract called 11.
[illegible] contains 5723 acres, is on Laurel Creek in Kanawha
[illegible] County, West Virginia, and lies mostly in the
[illegible] of Section 7 of the Coal Measures and is
[illegible] Main Branch of Laurel Creek and
[illegible] Creek and is irregular in shape,
[illegible] Northeastern end is about a mile and a half
[illegible] of the Kanawha River at Brownstown
[illegible] miles above Junction of Charleston
[illegible] of West Virginia. The Chesapeake and
four miles West of Peytona, a Coal
[illegible]. This Lot of 46 acres in all have been staked
[illegible] that near the mouth of the Left Fork
[illegible] Creek. The Parker Coal Tract No. 37, in
[illegible] nearly triangular form, and is bounded
[illegible] contains 580 acres but deducting about 576
[illegible] adjoins with its longest side its own line of
[illegible] Left Fork and runs along the Eastern line
[illegible] thereof, that is along the Northeastern boundary
[illegible] Creek, Southerly a mile of the Laurel
[illegible] Creek. [illegible]
[illegible] Creek Coal Co. [illegible]
[illegible] Left Fork [illegible]

Right Fork — runs about a hundred rods [illegible]
and large [illegible] and [illegible]
[illegible] runs a mile [illegible]
[illegible] and [illegible] [illegible]
and [illegible] and [illegible] is often
as [illegible] greater than called for by the land.

Left Fork [illegible] the main Forks
[illegible] from the Forks
[illegible] Left Fork [illegible] long side hills
and [illegible] and Birches
to the end. [illegible] [illegible] added
by the rest on [illegible]
[illegible] from the
various Markings. [illegible]
a thinking ridge between the Right & Left Forks
[illegible] the two Forks and the Left Fork
[illegible] [illegible] Rocky & high
[illegible] and the Right
hill Slopes generally [illegible]
and Level.

Both Forks [illegible]
[illegible] rods above [illegible] they fall only
eight or Ninety feet & run [illegible]

to one side or the other or partly on both in [illegible] every part of the [illegible] a strip of nearly flat land one or two hundred yards wide or [illegible]. The larger side hollows have similar but [illegible] strips of flat land along the bottom, and [illegible] level parts of the [illegible]. The [illegible] of the hollows are all steep, and steep almost [illegible] extremely so that even low cliffs are not uncommon but there are no very high ones.

Geology. — The shape of the ground just [illegible] is explained by the geological structure. The rocks all lie level or almost precisely so giving rise to flat table like hill tops here and there to the flat valleys and to the many cliffs and the uniformly abrupt hillsides. The dip of the rocks is so slight that without much careful levelling it would be impossible to tell exactly what it is or whether it is the same throughout the tract. It [illegible] had been to be in general uniform throughout [illegible] and to be towards the [illegible] about one [illegible] in 7, or 8 feet to the mile. There are however local variations of the dip extending a few hundred yards, [illegible] [illegible], [illegible] varying thickness of the rock layers

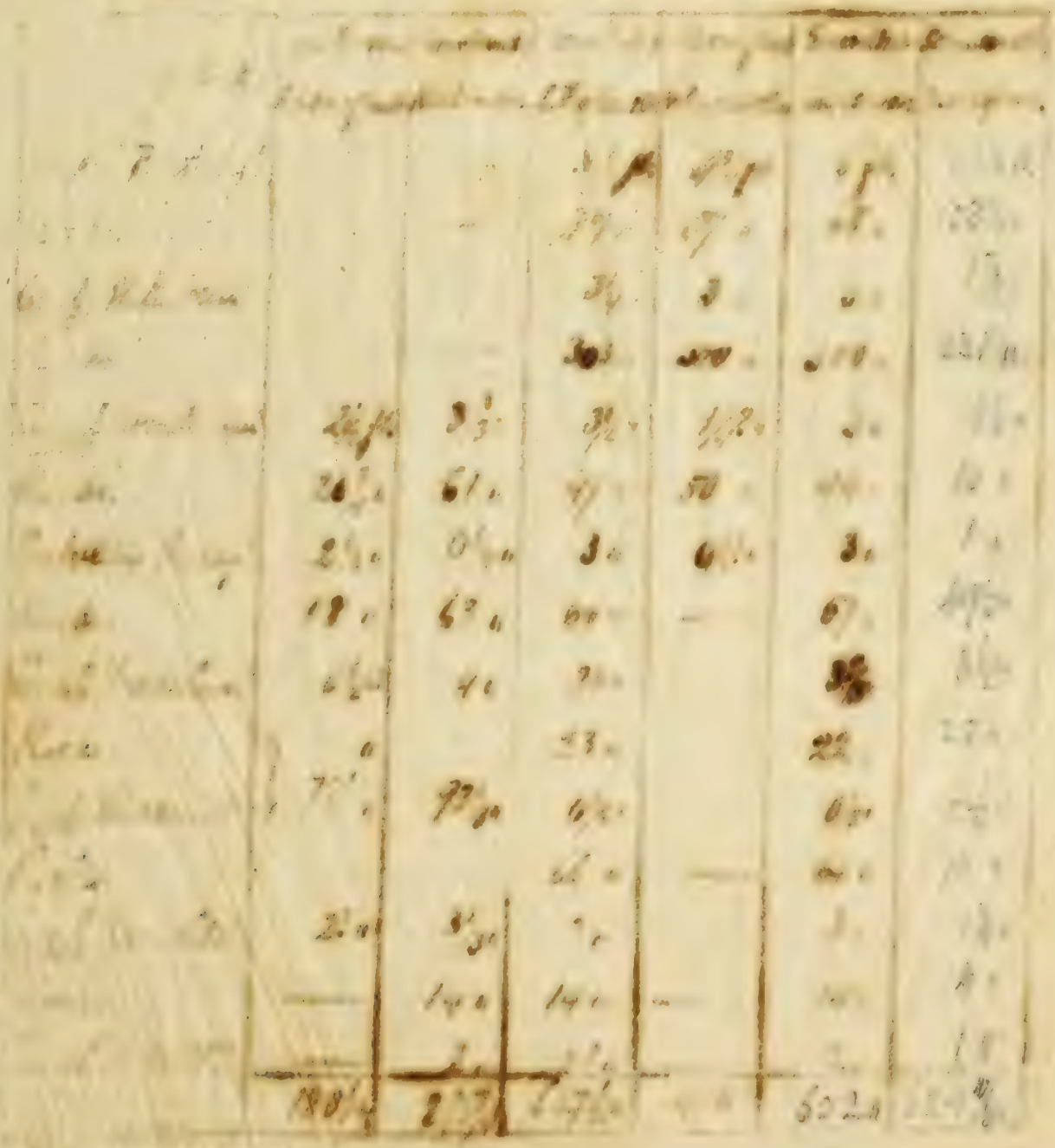
The following [illegible] will be found [illegible]
[illegible] the coast:

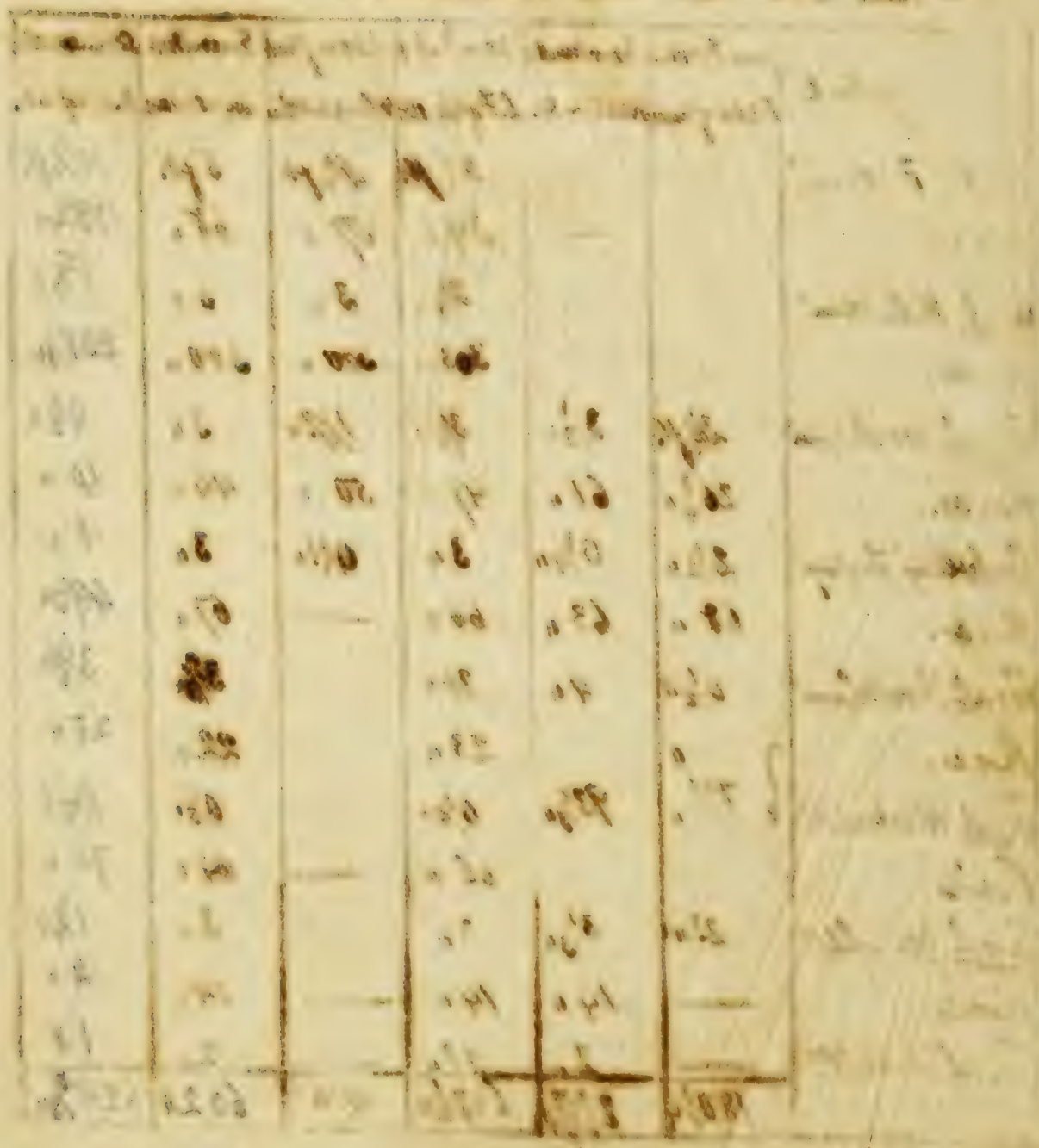
From [illegible] to [illegible] [illegible] feet per [illegible]

Chalk
Yellow " 30 "
Coal "Pittsburg" " 3 " 45 " per [illegible] " 5 "
Yellow " 40 "
Brownish gray sandstone " 4 "
Yellow " 14 "
Yellow " 6 "
Coal "Plastein" in two or three thin
layers alternately with clay, the
upper one named, average, thickness " 3 "
Yellow " 190 "
Brownish gray sandstone " 5 "
Yellow " 185 "
Coal, wood upper [illegible]
about only [illegible] [illegible]
[illegible] [illegible] " 8 "
Yellow
Brownish gray sandy [illegible]
Coal "Plastein" [illegible]
[illegible] [illegible]
Brownish gray sandy [illegible]
Yellow

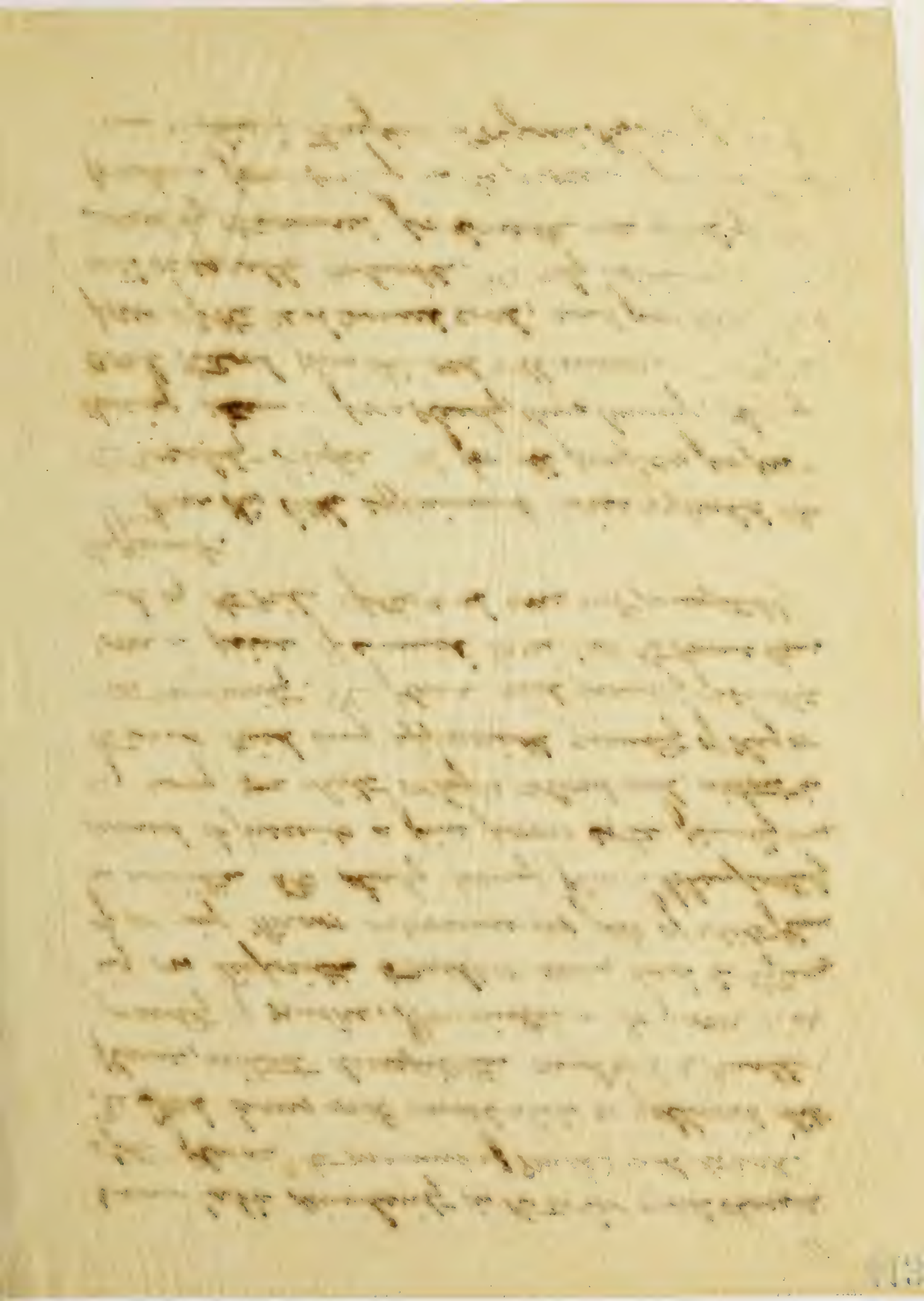
Brownish gray sandrock ——— 40 ft
Shales ——— 4.
Brownish gray sandrock ——— 12.
Coal, with clayey ———
Fine clean white sandstone
Drive to water, 385 ft ——— 30.
Shales with sandrock ——— 22.
Coal, with clayey ——— 43.
Shales ——— 2
Clay ——— 24.
Brownish gray sandrock ——— 12.
Shales ——— 6.
Sandrock ——— 5.
Brownish gray sandy shales, sometimes
small iron ore ——— 15.
Coal, [illegible]
Fine clean white sandstone
Drive to water 385 ft
385 ft ——— 3.
Brownish gray sandy shales ——— 14.
Coal, [illegible]
385 ft ——— 2.

640.





Ashes (grey) ---- 6/45
Aggregate water - 6/25
100 70



2 [illegible] nearly about 500 feet deep [illegible] about the bottom of the coal measures, and was not quite deep enough to test the place, perfectly [illegible] the hole seem to be mainly about 700 feet below the coal measures. It seems to me [illegible] high probable that salt will can be found [illegible] in the State, and the abundance of coal at hand would cheapen the boring and the boiling down [illegible] water.

3d. — The Saddlers will had no success in finding oil there is no probability whatever that any can be found in this neighborhood, at least in paying quantity; in spite of the fact that some of the Kanawha salt wells have had small quantities of oil and large quantities of gas, and that oil is found in the Conglomerate where coal measures in Kelly's [illegible] are very far distant.

4th. Forks of Leas Creek are but a mile and a quarter from the Clearfork and this Railroad at the [illegible] fork creek, and say a mile and a half from the Kanawha River. The bed of the creek is still quite low to the mouth from higher up, and it is plain that a railroad could be built with very easy grades (and all from the coal to either railroad or river. But if [illegible] would carry it eastward either down or [illegible] the great markets there, and the railroad could convey it eastward to the great markets that will doubtless exist for it when the wonderfully abun-

hand in [illegible] of the [illegible] of Virginia, as a [illegible] purposes for [illegible] will be brought [illegible] to the coal.

Conclusion. — In short, then, the [illegible] are even larger than the [illegible] say, the amount of coal is ample, the [illegible] and gentleness of the dip all that could be desired, the quality of the coal as to firmness, freedom from sulphur and slate [illegible] all that could be expected, the roof and floor of the [illegible] [illegible] and the [illegible] and markets promising. The least favorable circumstance is the thinness of the coal beds; but there seems to be no difficulty in mining these [illegible] beds profitably [illegible] especially with all the other conditions so favorable; and, besides, the quantity of coal [illegible] is very large.

Benj. Smith Lyman

7 August, 71.

ra

Capt. Fifth Battery, Philadelphia, Pa.

Julius Bierley,
Capt. U.S. Lt. Art., 5th Battery C.
16 Park Place, New York City.

Dear Sir:

Enclosed please find [illegible] which
I wish to hand you Thursday next if convenient and
will be very much obliged to you.

Yours very truly,
Benj. Smith Lyman.

| | |
|---|---|
| " | 1,10 |
| " | 7,00 |
| " | 3,00 |
| " | 0,05 |
| " | 0,20 |
| " | 4,50 |
| " | 0,05 |
| " | 1,30 |
| | 0,15 |
| | 0,50 |
| | 2,00 |
| | 2,00 |
| | 0,75 |
| | 0,50 |
| | 0,10 |
| | 5,00 |
| | 0,25 |
| | 2,10 |
| | 5,10 |
| | 1,00 |
| | 0,75 |
| | 13,00 |
| | 2,00 |
| | 0,25 |
| | 0,75 |
| | 1,50 |
| | $97,05 |
| | 50,00 |
| | 500,00 |

138 South Fifth Street, Philadelphia, 18th Sept.

Julian Brien Esq.

Asst. A. Y. Cashier Bank of Brotherly Love,

16 Park Row, New York.

Dear Sir.

The gentlemen interested in the mine of Hope wish you to write me how the stock stands in your estimation. We do not propose to sell any of ours at present, but we are anxious to know what it is worth, and if you can spare time to send me a photograph of yourself for the purpose of correcting the lettering by.

Hoping however that your health is mainly restored by this time I remain

Yours very truly

Benj. Smith Lyman.

135 [illegible]

20 Aug. 1872.

Martin Esq. Ill'g.

Sir [illegible] Solicitor of Internal Revenue

Washington D.C.

Sir,

Enclosed please find [illegible]
[illegible] first January a year from date
[illegible] dollars [illegible]
[illegible]

Very [illegible]

[illegible] Martin

[illegible] Feb. 1st, Charleston, S.C.

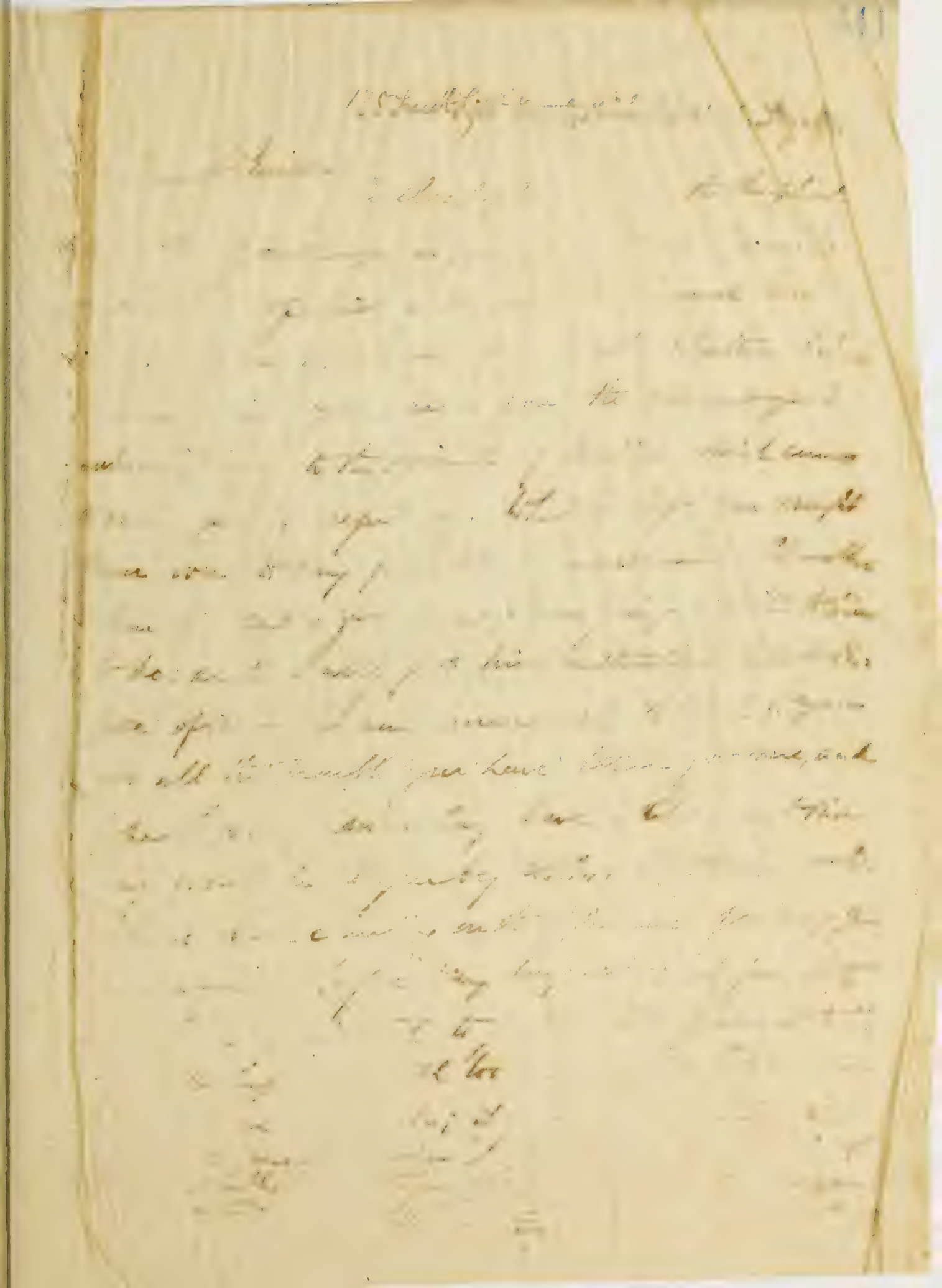
Dear James:

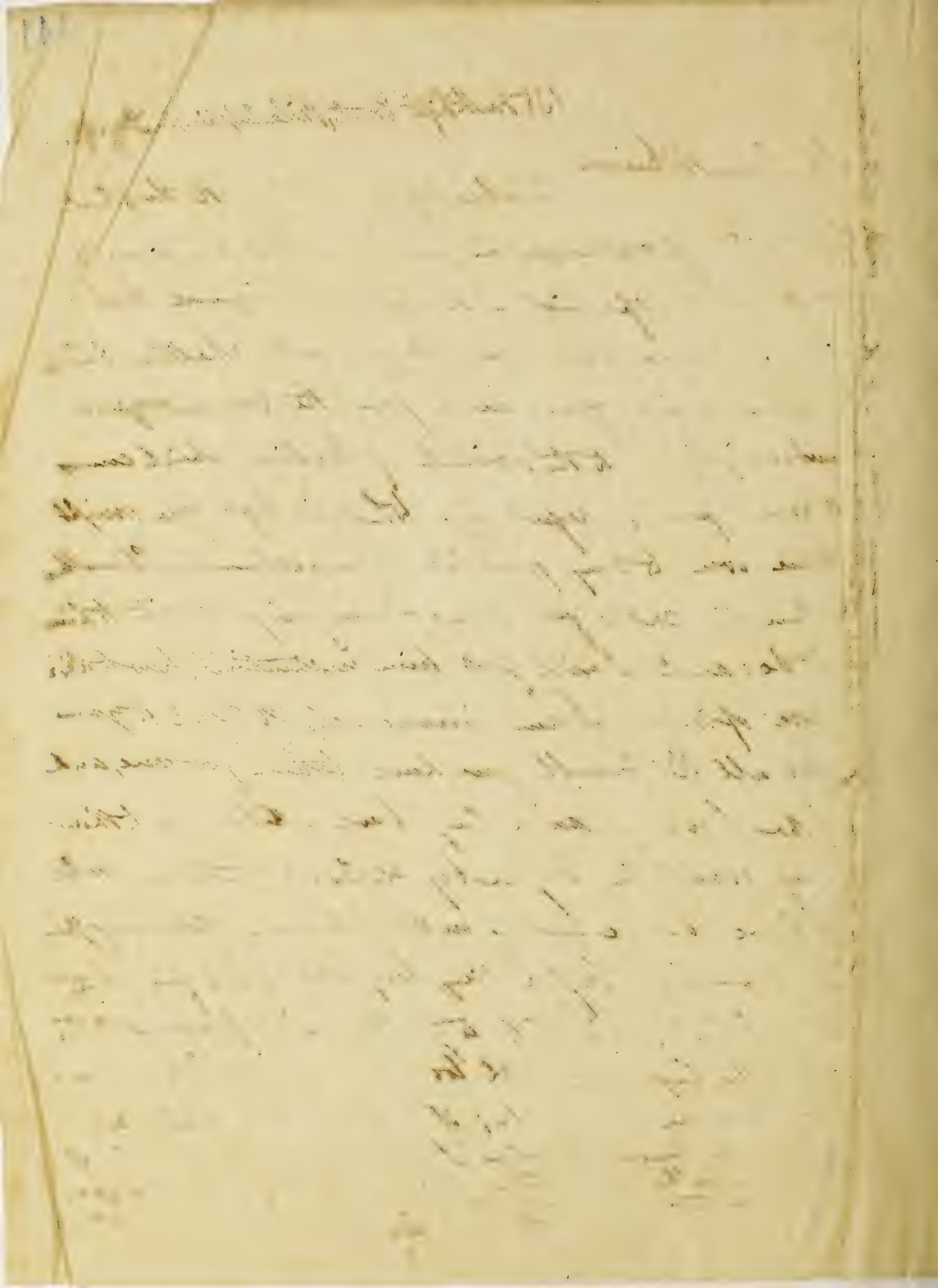
[illegible] Thursday is a day at the [illegible] and I am [illegible] that you might [illegible] your account. [illegible] debt it would perhaps be best to leave the settlement [illegible] to the last.

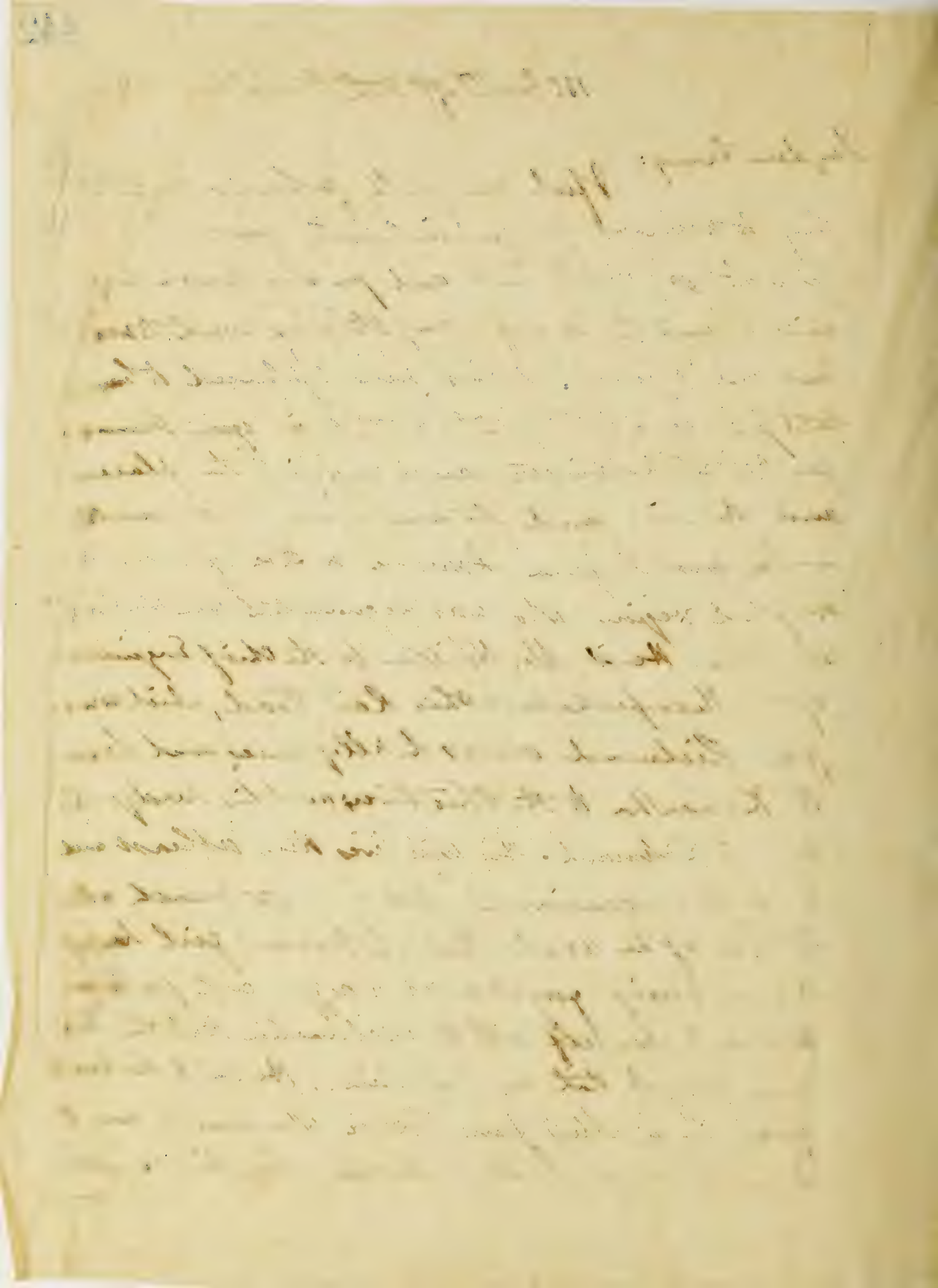
I am very much obliged to Mr. Ogden for his kindness in agreeing me supplied with [illegible] and I should be very happy [illegible] to call on Mr. Ogden when [illegible] not comes than a couple of weeks from now and [illegible] Thank [illegible] Mr. Ogden highly for [illegible] I passed through [illegible] but he must be [illegible] put down in the [illegible] Lemon Cassel [illegible] [illegible] me [illegible] I called at Mr [illegible] office in Philadelphia [illegible] New York (the [illegible] day I called at Mr. [illegible]) but he [illegible] and at the moment and I am not [illegible]

Yours affectionate Brother

Henry Smith Ogden.







GAL

135 [illegible] 15th St, [illegible]

The Commissioner of Patents,
Washington, D.C.

Sir:

[illegible]

My dear Ella.

I am glad to learn by your letter
[illegible] and dizzy me to get
[illegible] house is nearly finished
[illegible] to day [illegible] you
[illegible] and come from the [illegible]
[illegible] your labors [illegible]
[illegible] given you by the [illegible] already to the labors of moving. All your loves
a mark a lot of them for doing that work, I
trust you will not sister [illegible] and he
[illegible] if as it [illegible], he will [illegible]
Cecily. Love in hopes that I should be able
to be at Williamsport and [illegible]
[illegible] but upon that it will [illegible]
[illegible] time will be to [illegible]
in Central have [illegible] for [illegible]
[illegible]

gold for me, is already sold & the money
& lie to be taken up by the 1st of September; what the sale
bring cannot be put off beyond that time, & an
ment answers all purposes, I am
ten. — I am still occupied in writing some
ort Virginia work, & the weather
much more suitable for such work than it has been
for three months. It is long since
here, & another is in progress. I have nearly a volume
New York with
finished, & the
I do not feel cold
ten enough, but I feel the passing away. We have
my friends more, chiefly in the afternoons, as
the
with
, and it was likely that a good deal, perhaps
I.

S. F. L.

To the Commissioner of Patents.

Your petitioner represents that on 2 day Aug. 1871, he filed an application for Letters Patent for an improvement in Level Rods and Stadias which application is now pending but has not been acted upon. He now makes renewed application for Letters Patent for said invention, and prays that his original specification drawing and model may be used as a part of this application; and he hereby amends the specification by striking out both claims and substituting therefor the following:

1. The use on level rods and Stadias of sunken or pointed numbers for the purpose and in the manner described.

2. The marking of the principal divisions of level rods and Stadias with numbers or figures distinctly different from the rest of the rod in the manner and for the purpose set forth.

Resp. submitted Lyman

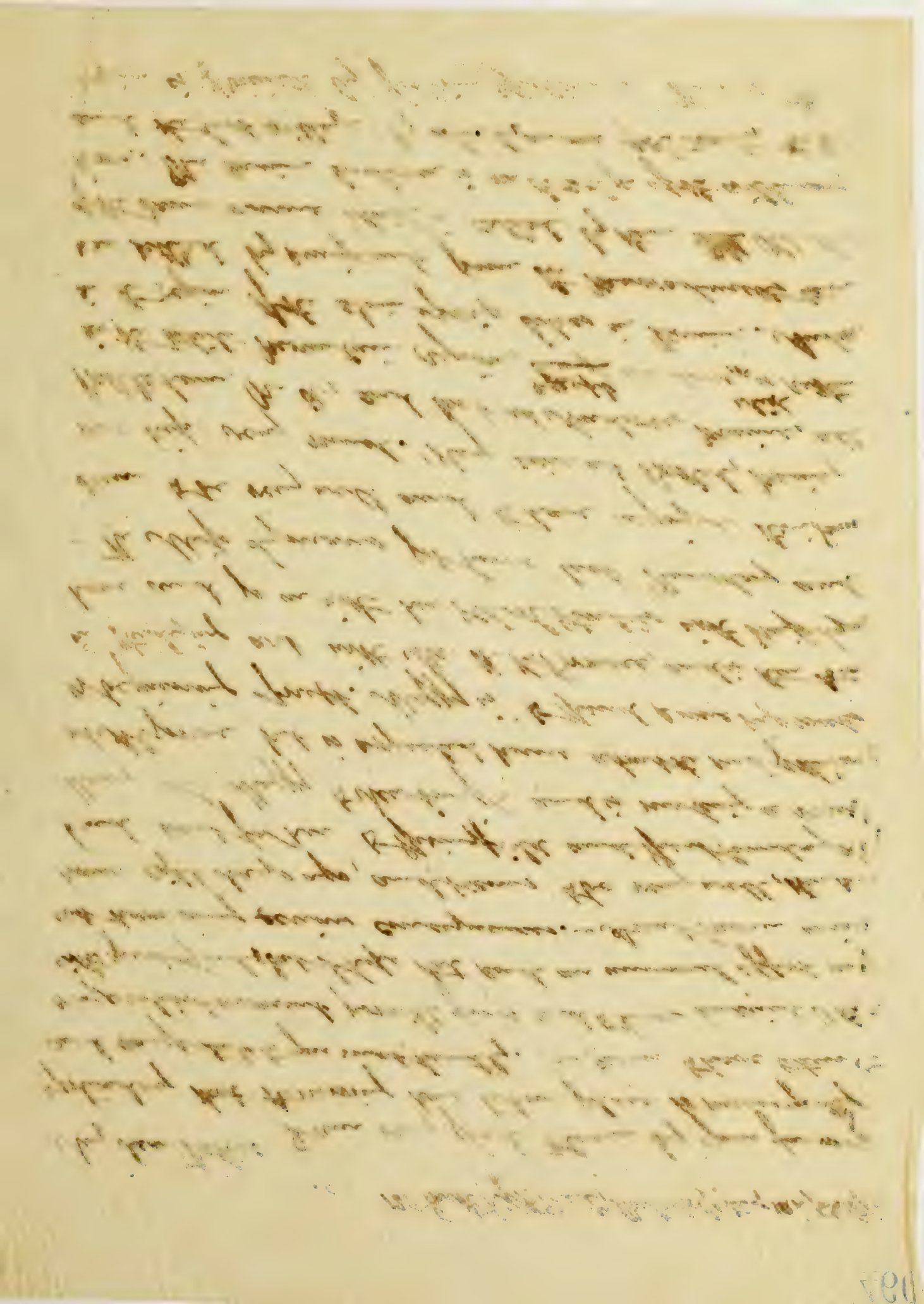
135 Fed. Pat. Off.

2 Off. Gaz.

[illegible] for you at [illegible] . [illegible] [illegible] to [illegible] [illegible] and [illegible] [illegible] [illegible] [illegible] [illegible] as they [illegible]; but they [illegible] very [illegible].
It seems a shame to [illegible] you any more with the affair, but I have thought you might possibly know [illegible] of still another suitable teacher for the [illegible]; [illegible] [illegible] [illegible] thinks that [illegible] [illegible] would hardly do. Would it [illegible] [illegible] [illegible] [illegible] trouble for you to pick out from [illegible] [illegible] (if she is already at [illegible]) [illegible] her opinion of [illegible] [illegible], and then let me know of your [illegible] [illegible] anybody [illegible], and if possible [illegible] [illegible] [illegible] recommended. It is quite possible [illegible] would not wish to [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]; but [illegible] [illegible] think [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] — Miss [illegible] letter had been [illegible] in [illegible] absence and the [illegible] was probably sent to the [illegible] letter office at the end of a month.

[illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible] [illegible]

[illegible]



[illegible] and will work [illegible]
[illegible] from the hand of one
in whom I already take
so much interest.

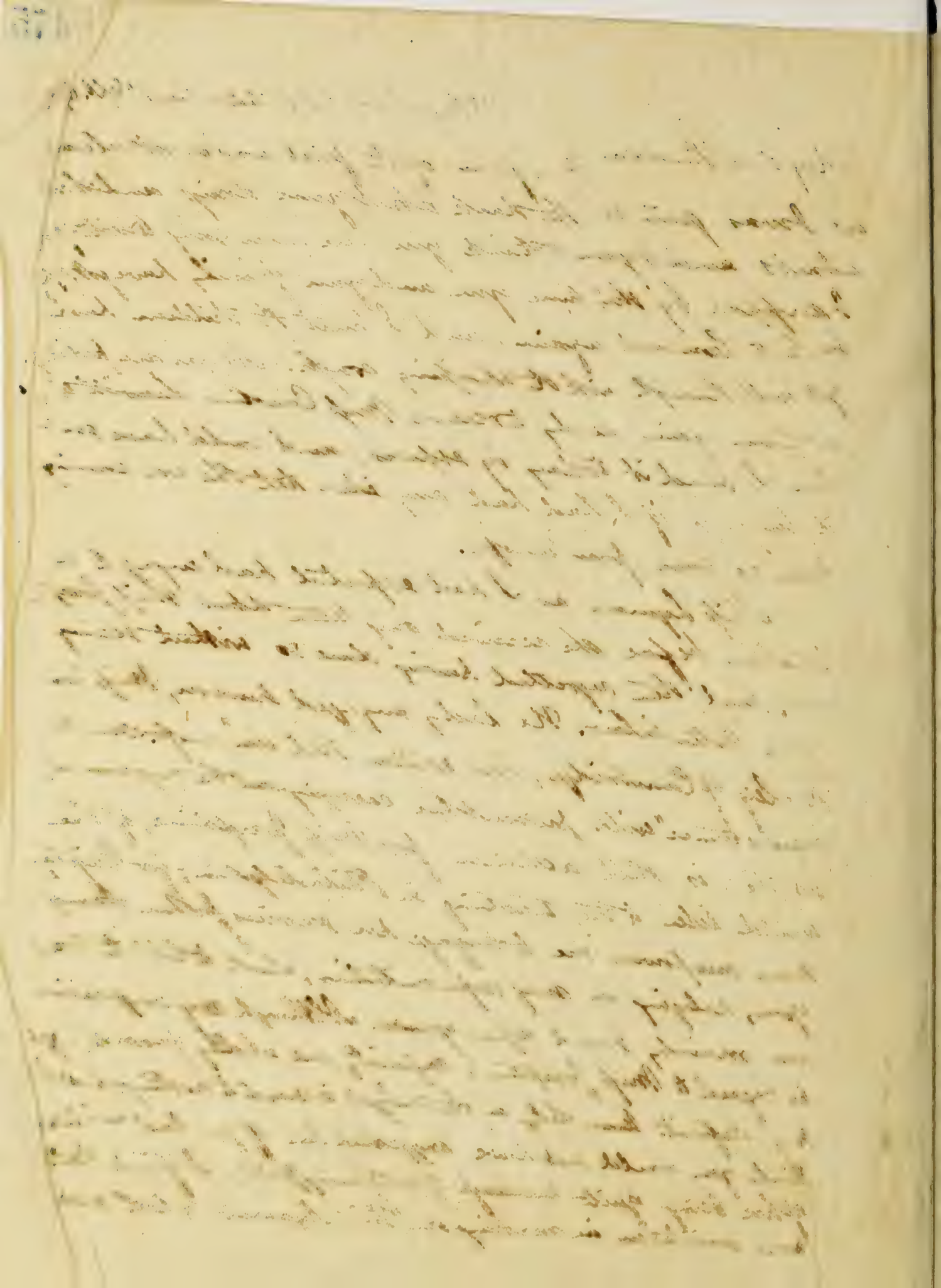
Thanking you also most
kindly for all the trouble
you have taken in my be-
half in helping our friend
the Pundit Rama Chandra
& carry out my commissions

I remain, Dear Sir
Yours very truly
Benj. Smith Lyman

[illegible]
[illegible]
[illegible]
Asiatic Society Library
Calcutta.

Dear Sir:

I owe you many
thanks for your interesting
book on the Bauya Yoga the
you so kindly sent to me.
I did not have the good
fortune to witness any cele-
bration of the festival, but
have had great curiosity
in regard to it as well as to
peculiar Indian customs
If I have an opportunity
and I will do it I shall be



difficulties of his position. He tells me that some of the
boys he had last year will not come back this year, and
this he says will be a very good and perhaps even a very
short year for him. He evidently is needed & liked by
all the boys, & is doing a very good work. Mr Lyman is
a well-bred gentleman, & a thorough scholar, and although
the highest Medical authorities in Honolulu, & in fact all
who know of his ability, would like to have him as a
permanent citizen, he will not be induced to remain
after his contract expires. He has two assistants besides his brother
Walter who are employed by the term, and there is often another
or two gentlemen besides these who board at the house &
help the school funds a little. But the main support of
the school is undoubtedly the pupils. Mr Lyman thinks that
if he can keep the present number, & perhaps add a few
more, he will be able to pay all the running expenses
of the school as well as a little over. He pays
me $600. the first year, and then he says he will
raise me. He pays will be eight hundred dollars the first year,
and then need not be the slightest question but that it will be paid
well, paid (as he himself) for Mr Lyman is extremely
particular and only to be liked. His brother Walter
is also a very pleasant, perhaps a little too
reserved, but thoroughly kind & obliging. They wish me to
become at once a member of their house & family while looking for a
convenient boarding place. Board would probably cost me
six dollars a week, and we should all be most happy to have
that we could thereby help pay a good price. He should also
like pleasure in making the acquaintance with as many ~~ages~~
as we can among our own small number of
acquaintances; no doubt the number of pupils would
increase more rapidly than ours has. The school is very
low at this time, as many are in the country, and although they
will not return next Wednesday, it never disturbs us, as we would not really
need before the third week of the term. If I could make it convenient to
[illegible] during vacation, I would
[illegible] as I shall be more pleasure than a
[illegible] does not allow me to [illegible]
[illegible]

To the Commissioner of Patents

Sir:

[illegible] by the Examiner is [illegible]. It is [illegible]
limited that all communications should [illegible]
[illegible] and come to the Assistant [illegible]

Within a few days the newspapers have announced that
the Jacob Perkins by your decision "a useful process" or an
invention entitles you to a machine [illegible] "Improvement"
for a design patent; and that is precisely what I urged
a year ago. Since then [illegible]
Orders have caused needless expense and delay. It
would seem indeed the merest justice that amended
claims should be admitted and a [illegible]
[illegible] without any further expense or delay.

I have the honor to be, Sir,

Your most obedient servant

Benj. Shurtleff

Newburg N. York

My dear Sarah:

135 South Eighth Street, Philadelphia, 1866

Mme. Augustin Cauzot,
No. 19 rue de la Ville l'Evêque,
Paris.

My dear Madam:

I beg to make you acquainted by this with my sister Mary Symmes, whom I cannot bear to have to leave Paris without bringing me some tidings of you and your charming family.

I think to find you and she will be sure to take pleasure in each other's society - because you sympathize so fully in many of the questions that interest you so much here years ago. What changes have taken place in Paris since that as well as in the United States, and how I should like to talk them over with you and your excellent husband! But I fear I am to go to Rome with [illegible]

I may [illegible] a chance to [illegible] you in Paris on my way [illegible]

Give your many kindest regards to Mr. Cauzot [illegible] and believe me always

Very truly yours.

[illegible]

Mrs. T. L. Sanborn.

My dear Madam:

Your favor of [illegible] came yesterday, and I found had every one known me, and was glad to hear from you as well as to myself. You intimated me to send word if you wished to come on and take the plan as I had in this school, hoping that the arrangement will be our satisfactory to both parties.

I think of going to New York next week Friday, Saturday and after transacting my business there I go, I shall through to spend Sunday and the other days of the week with my aunts Mrs Delano's according to an invitation lately received. I could then meet you in in New York on either Tuesday or Wednesday, the first or second of February or any other day, whichever may be most convenient to her. If she left Boston in the early New York train, eight o'clock, she would reach New York about five and Philadelphia about the or [illegible] of the same New York by a Sound Steamer, she would arrive early in the morning and I would find her at the boat and we should reach Philadelphia by day light. That however would perhaps be more [illegible] and pleasant to come to the land [illegible] time. It would hardly be possible for me to [illegible] the kind invitation to visit you in Concord, but I hope [illegible] Easter. I trust if you are still the address of [illegible] Peterboro and I am uncertain [illegible]

454

Mrs. [illegible] Johnson

Newburgh, N.Y.

[illegible]

I expect to be in the first part of next
week, on Saturday, the twenty second of June; and
shall be very happy to go up to Newburgh on Saturday,
if agreeable in accordance with your wishes, & stay
over the Sunday. I should be able to get through in
time to leave in the afternoon of Monday. This
is my first visit, but in that case I will take your
offer of the carriage if the arrangement should not be
inconvenient for you at all please let me know
and I will be obliged.

[illegible]

No. South Eighth Street, Philadelphia
21 Sept. 1872.

L. E. Lawton,

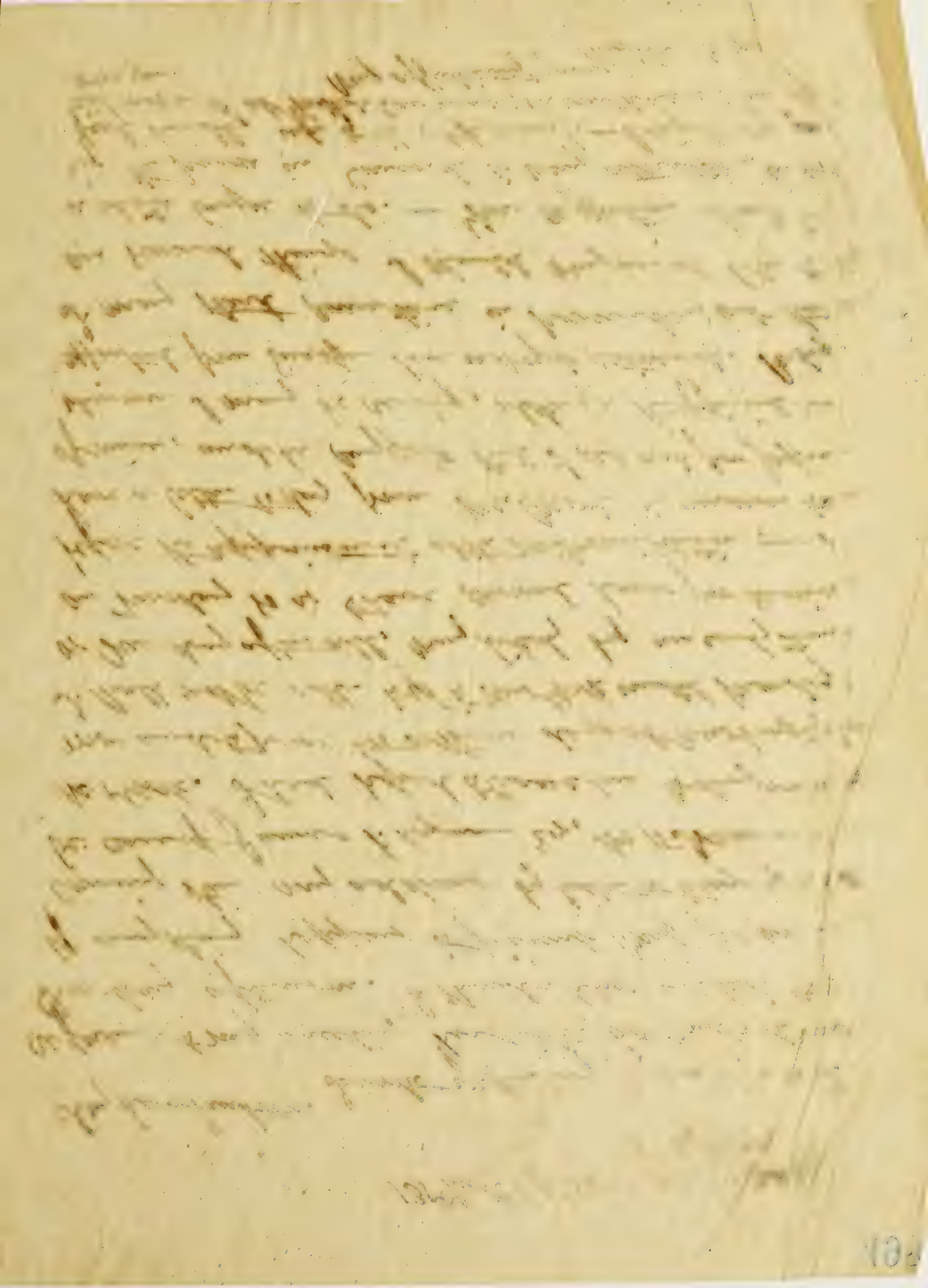
Scal Ryder & C. Company
No. 17 Broadway, New York.

Dear Sir,

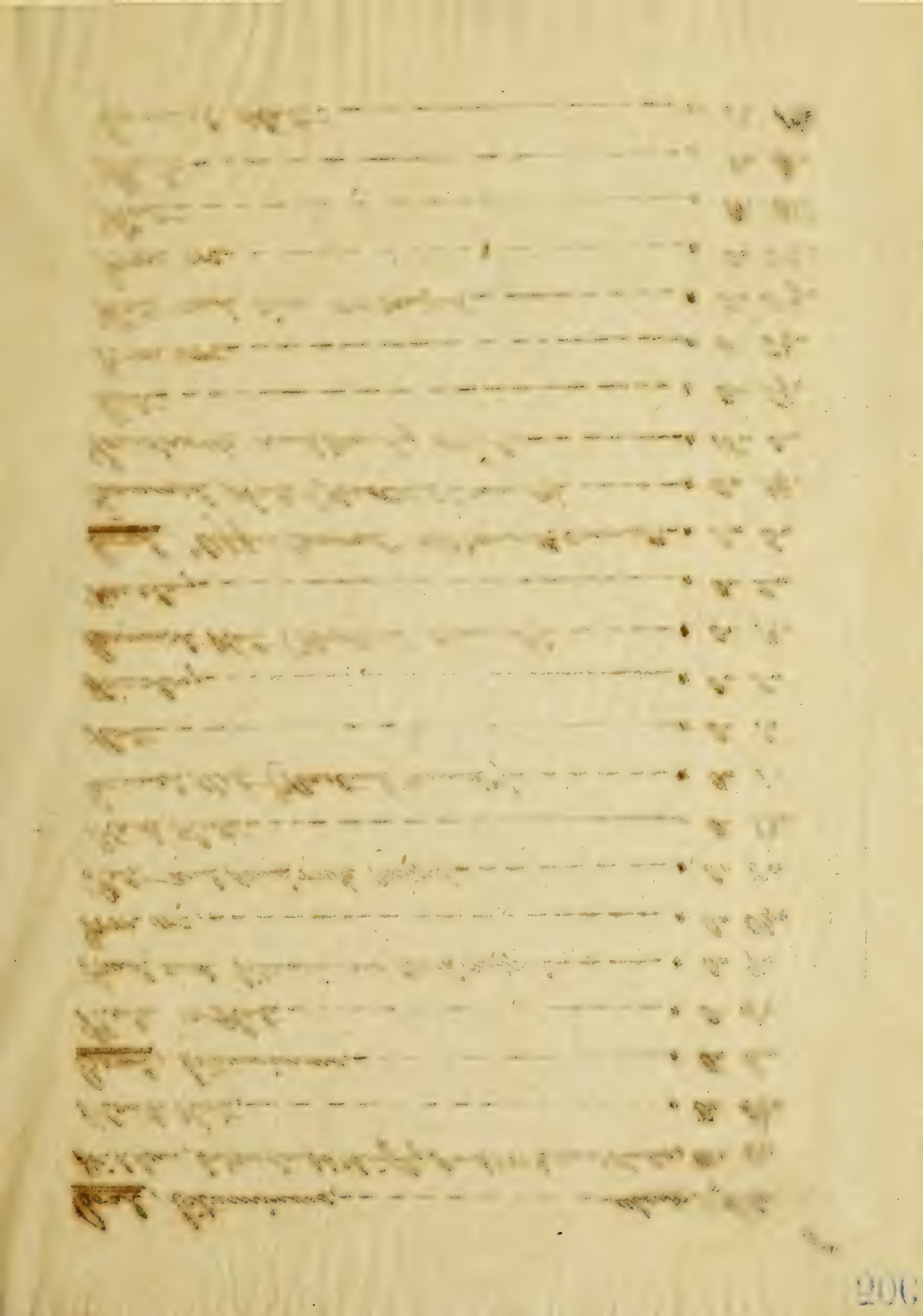
I am obliged to you for the receipt today of your favor of yesterday inclosing a check for four hundred dollars on account.

There would be no difficulty in putting color on the photographic proofs. The only colors made especially for use on the china "ambrotypes" or what the photographic is printed, or rather by which the positive on glass paper. But I do not suppose that it would have a very good effect to color the hair or face with them for support. The great prominence given to the features will prevent a flesh tint from being generally agreeable. An effort was made to give each feature its due relative degree of prominence; and the flesh tints have evidently been chosen with very great care. Mr. Irwin will no doubt be happy to make any experiments in coloring that you may wish.

I am, Dear Sir, Yours very truly,



1951



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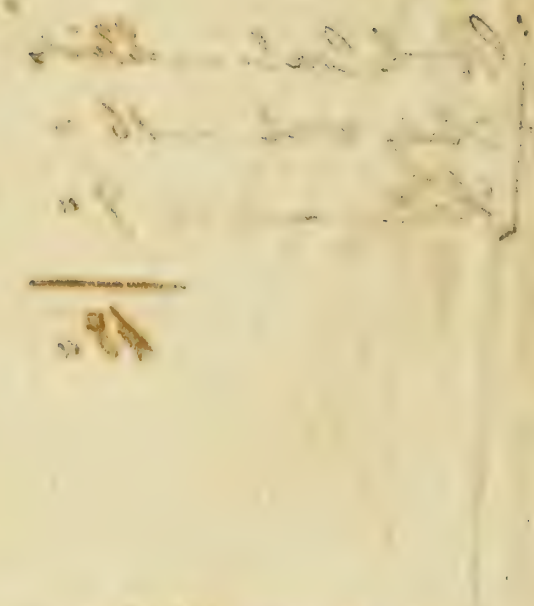

[illegible] Cannel Coal [illegible]

...ight close about the mines are first worth ...
...ton and is about ... 100 acres.
...with a ... vein of two feet and a half wide ...
...but 10,000 tons. ... gilts.
...ness ... 8 to 5 ... have been ... this
... vein ... mines, which ... on
a space of about 70 acres.

...ort Creek.— The shoot Creek ... is
called from ... flowing near the ... Mine, ... meanders ...
...et and a half, ... that
...n that it cannot be entered. ... is
...rkably ... on Indian Creek ... and
above Abohies house and ...
...the mouth of Meadow ... Creek,
...and it measures there ...
...inches in thickness with a layer of ...
nearly ... inches thick ... mine ... the
...the top. It is ... on ... bed
of Lens Creek, and seems ... uniform
uniform and permanent of all the coals ... in this district, and is a very ... coal. It also ... bed ... at the Winifred ... mines ... at Coalbrook.

It underlies about 5775 acres of the land, and is probably workable throughout, with a weight in all of 32,615,000 tons, statistics of which

Other Coals.— The Mackenzie Coal is so named from its hardy and very laborious forge, and must be very persistently of fine grading, since the name coal is called in the various colliery districts. It is known to the people except for its burning the ashes.

The coal has partially opened but 150 feet above the Canal. Is good bituminous coal in the lower bench, and may prove workable in those places; but cannot probably be counted as such throughout the tract. It is, probably the same as a bed of unworkable thickness that has been opened on the waters of Indian Creek within a mile of Canal" [illegible] a few miles of Canal [illegible] one or two distance from it.

Jerold's Coal of Lees Creek, workable size, does not exist at Bystina, but is reported by some there [illegible] of black coal

at the bottom of the Lance iron bearing beds that overlie the bed in Lens Creek. The Hanner bed (Mitchell?) below Herrold's likewise does not reach to Centena. The three inch coal at the Hanner if the section is not in error of the Main Lens [illegible] Pennsylvania formation No. XII which underlies the Coal measures; but the rock in which it lies is here a fine sand [illegible]

The Coals. — There are then the Centena Coal with 5565 acres, with the Main Bed, perhaps 100 acres workable with a weight of 200 000 tons and the Upper bed about 3435 acres in all, or perhaps 50 acres workable with a weight of 200 000 tons, or a weight in all of the Cable cannel of 600 000 tons at a thickness of two feet and a half. Even allowing a loss of one third, 400 000 tons [illegible] than twice as much coal as has been mined from Centena up to this time (about 180 000 tons).

The bituminous coal at Root Bed has an extent of about 1775 acres with a weight of 32 615 000 tons [illegible] thickness of five

...et and a half, and the Pittsburg Bed pe...
...s 3050 acres with a weight of 19.665.000 ton...
...s a thickness of four feet, or in all 52.300.00...
...ons.

Of coal kinds of coal together there would be worked then 52.900.000 tons.

Other Minerals. — Coal. — The Lower Kittanning beds crossed by ... along the Kiskiminetas River a dozen miles north of Saltsburg lie at about seven hundred feet above the ... Coal Measures, or only five hundred feet below Pond Creek at Saltsburg. It is not unlikely that these beds would be found equally rich in coal here if they should be bored upon.

Oil. — ... likely that oil in workable ... would be found by boring here and ... than it has been found at Saddlers Well, some 500 feet deep on Linn Run, or the Kiskiminetas salt wells, some of them about 2000 feet deep. Traces of oil and large quantities of gas have however been found in the salt wells.

Iron. — In spite of the

[illegible] beds of iron ore in Prof. Stevenson's [illegible] the corresponding beds here seem none of them to be workable, although small quantities of the ore (carbonate sometimes altered to brown hematite) are found. The most promising beds seem to be near the [illegible] and some [illegible] four inches thick and rich.

Fire clay.— The Kelleton Coal and the little coal next below the Pittsburg coal have beds of fireclay below them at both place and perhaps elsewhere, at least along the outcrop.

Limestone.— No limestone of any quality is known here in spite of the abundance of it in the [illegible] of Prof. Stevenson's section; but many of the Pittsburg Coal group of rocks layers are somewhat calcareous.

Shipment.— At present the only means of shipping coal in quantity from the tract is by the river with barges, by the Kanawha navigation with eight locks and a distance of thirty five miles to the Kanawha & Ohio

ment of Gov. Reeve, &c. ... be sent down the Kanawha River in ... or by the Chesapeake and Ohio Railroad; and soon can be sent up the River also by the railroad and steamboat to the Atlantic Coast. From the Kanawha ... on the Ohio and Mississippi the transportation by water is cheap, and the navigation ... is very long. Mineral coal could be sent round by water to the Atlantic coast very much cheaper than it can be ... on a large scale, but could read transshipment at New Orleans and a heavy agent there. A railroad has been surveyed and found practicable only twelve miles long from Clayton & Brownton on the Kanawha to Thornley Creek, and coal could be put by it cheaper ... great part of the Blackshire and Ohio coal land.

I demand for Clayton & Brownton [illegible] I find it increasing very largely when the great excellence for domestic fuel and for gas be more generally known.

10 Oct. 1872. Very truly Yours